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UNITED NATIONS TRANSPORT AND COMMUNICATIONS DECADE IN AFRICA, 1978-1988

VOLUME IV

APPROVED PROGRAMME OF ACTION FOR PHASE II 1984-1988

TRANSPORT PROGRAMME

PROJECT PROFILES

PART V AIR TRANSPORT

UNITED NATIONS TRANSPORT AND COMMUNICATIONS
DECADE IN AFRICA, 1978-1988

Volume IV

AIR TRANSPORT

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Project No. AIP-02-001

ANGOLA: STUDY ON THE REHABILITATION AND EXPANSION OF THREE PROVINCIAL AIRPORTS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: The expert services of an infrastructure engineer

Location: Local airports

Cost: $59.00 million including $0.052 million for expert appraisal

External financing required: $0.10 million

Duration: Six months for the expert appraisal; two years for rehabilitation and expansion

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: Civil Aviation Department

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

This project meets the objective of adapting African airports to cope with development of air transport and the modification of their characteristics. Its aim is to provide Angola with suitable airport infrastructures. As a result of the war of independence, during which most of these infrastructures were destroyed, Angola has had to undertake a vast programme of rehabilitation.

The indispensible nature of air transport in Angola is stressed by the size of the country's population (nearly 8 million), the extent of its territory and its geographical situation (the importance of its ports to neighbouring countries such as Zambia) and the fact that its roads are temporarily unusable.

2. Nature and constituent parts

In its first phase, the project involves an expert appraisal of provincial airports by an infrastructure engineer for at least six months, in order to determine the nature of the expansion work needed on these airports to enable them to accommodate B-707 type of aircraft.

In its second phase, the project will consist of work on the extension and strengthening of the runways identified during the first phase.

III. Justification; economic and financial analysis

1. Context and benefits

The rapid increase in passenger and freight traffic in Angola makes it necessary to gradually introduce wider-body aircraft.

The air transport development programme provides for the following:

- Replacing F-27s by Boeing 737s and 707s on the main domestic and intra-African routes, so as to double or triple the capacity available;
- The opening of new domestic links in line with the intensification of services on the domestic network which will then be provided by F-27s.

This programme, which aims at coping with a volume of traffic two or three times greater than at present, makes it necessary to review existing airport facilities in the interior of the country.

2. Cost

The total cost (first and second phases) is now estimated at $59 million. A more precise estimate may be made after the expert appraisal. The cost of this expert appraisal is estimated at $0.052 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$0.10 million

Project No. AIR-02-002

ANGOLA: CIVIL AVIATION TRAINING CENTRE

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Extension of the civil aviation training centre at Luanda: construction of new buildings, purchase of training aircraft, of spare parts and simulators, and technical assistance in the form of instructors

Location: Luanda

Cost: $3.00 million

External financing required: $2.50 million

Duration: Two years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: Civil Aviation Department

Observations: This project transferred from Phase I, comes under the supplementary assistance requested by Africa for civil aviation in accordance with the document drawn up by ICAO for the Geneva Pledging Conference

II. Description

1. Aim and objective

The objective of the project is to develop the Civil Aviation Training Centre at Luanda to enable Angola to train its civil aviation personnel.

2. Nature and constituent parts

The project entails:

- Construction of new buildings;
- Purchase of training aircraft;
- Purchase of spare parts and simulators;
- Provision of technical assistance in the form of instructors.

III. Justification; economic and financial analysis

1. Context and benefits

Air transport is the most widely used form of transport in Angola because of the political situation. Since aircraft play such an important role in the transport system, large-scale training programmes for aeronautical personnel are needed.

2. Cost

The cost of the project is $3.00 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$0.50 million
External financing secured:	Nil
External financing required:	$2.50 million

Project No. AIR-02-003

ANGOLA: PURCHASE OF SPARE PARTS, FIRE-FIGHTING AND RESCUE EQUIPMENT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Technical assistance in the form of expert instructors to train personnel and purchase of fire-fighting and rescue equipment and of spare parts so as to re-equip the service

Location: Angola

Cost: $5.00 million

External financing required: $3.00 million

Duration: Three years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: Civil Aviation Department

Observations: This project, transferred from Phase I, comes under th supplementary assistance requested by Africa for civil aviation in accordance with the document drawn up by ICAO for the Geneva Pledgi Conference.

II. Description

1. Aim and objective

The aim of the project is to improve safety conditions at Angola's airports.

2. Nature and constituent parts

The project consists in:

- Purchase of fire-fighting and rescue equipment;
- Purchase of spare parts;
- Provision of technical assistance in the form of expert instructors to train personnel.

III. Justification; economic and financial analysis

1. Context and benefits

According to aeronautic standards for airport operation, safety equipment such as fire engines and rescue equipment are compulsory. At the moment airports in Angola do not have such equipment and are therefore operating at great risk. The purchase of such equipment will make it possible to improve safety in Angolan airports.

2. Cost

The cost of the project is $5.00 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$2.00 million
External financing secured:	Nil
External financing required:	$3.00 million

Project No. AIP-05-001

BURUNDI: STUDY ON THE CONSTRUCTION OF DOMESTIC AIRPORTS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Study on the proposed construction of domestic airports

Location: Interior of the country

Cost: $0.55 million for studies ($6.05 million for construction work)

External financing required: $0.55 million

Duration: One year

Desirable starting date: 1984

Project initiator: Ministry of Transport, Posts and Telecommunications

Project management authority: Civil Aviation Department

Observations: A preliminary study for an airport of the same category exists

II. Description

1. Aim and objective

The long-term objective of this project is to provide the country with appropriate aeronautical infrastructures for air transport.

The short-term objective is to facilitate the movement of persons and goods and improve the profit earning capacity of the national airline.

2. Nature and constituent parts

The project comprises preliminary and engineering studies for five aerodromes and eventual construction of five aerodromes.

III. Justification: economic and financial analysis

1. Context and benefits

The building of small domestic aerodromes is part of the country's development programme and is in line with the country's plan to diversify its means of transport in order to facilitate communication, social interaction and trade. These aerodromes will also encourage the development of tourism in the country.

2. Cost

The cost of the study is $0.55 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$0.55 million

Project No. AIP-05-002

BURUNDI: TECHNICAL ASSISTANCE TO THE CIVIL AVIATION AUTHORITY AND THE NATIONAL AIRLINE COMPANY

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Technical assistance and training of staff

Location: Bujumbura

Cost: $1.76 million

External financing required: $1.76 million

Duration: Two years

Desirable starting date: 1984

Project initiator: Ministry of Transport, Posts and Telecommunications

Project management authority: Civil Aviation Department

II. Description

1. Aim and objective

The long-term objectives are to:

- Develop air transport and make it profitable;
- Reinforce the aeronautical infrastructure;
- Improve civil aviation services; and
- Encourage tourism and trade.

The short-term objectives are to:

- Provide Bujumbura international airport with better management;
- Improve security services at the airports;
- Provide Air Burundi with managerial, organizational and operational facilities;
- Develop the operational capacity of Air Burundi;
- Draw up a plan for the development of Air Burundi and a plan to build domestic aerodromes;
- Enhance and improve upon the professional qualities of all civil aviation personnel.

2. Nature and constituent parts

The project comprises the following activities:

- Airport management: the drawing up of a master plan and a management manual; assisting in the development of the airport and in the evaluation of the relevant contracts; taking action geared towards improving the profit-earning capacity of the airport;
- Management of the national airline company; drawing up of development and management master plans; marketing; entering into agreements with other airline companies; utilizing the company in the economic development plan of the country;
- Operation of the airline: drawing up of operational procedures, a flight operations manual, co-ordination plan for the flight and maintenance services; continuing training of operational personnel;

- Fire-fighting and rescue facilities: drawing up of a plan of action in the event of an accident, providing basic and continuing training for fire-fighting teams; and drawing up a plan to improve the domestic aerodromes;

- Engineering studies on aerodromes: technical evaluation of existing aerodromes; presentation of over-all plans for their development; drawing up designs and relevant specifications proposals for the maintenance of these aerodromes;

- Operation of the telecommunications network: on-the-spot training of personnel;

- Safety: drawing up of a security plan;

- Training fellowships: 29 fellows in 15 fields of specialization;

- Equipment: acquisition of fire-fighting equipment, pedagogic equipment for flight simulator procedures and vehicles.

III. Justification; economic and financial analysis

1. Context and benefits

Burundi relies on a certain number of roads which pass through various countries to import and export goods and these goods are often affected by several difficulties being faced by the country. In order to free the country from its land-locked situation, a move vital for its economy, the Government is developing its means of communication and is for this purpose endeavouring to develop its air transport.

The amount of air freight in relation to the volume of trade remains small despite a recent increase. The development of air freight is limited by the restrictions imposed by the airport, the inadequate number of specialized personnel and the rather limited capacities of the national airline company.

Furthermore, the transportation of perishable products, tourists and the nationals of the country within the country will not be possible unless the so-called domestic or local aerodromes are developed.

With the help of bilateral resources, the Government has begun work aimed at extending Bujumbura Airport and carrying out improvements thereto so as to make it accessible to wide-body aircraft. Such an investment can only be fully exploited and rendered profitable if it is accompanied with modern management, the development of security services and the training of personnel charged with its implementation.

Furthermore, the airline company, which is a tangible factor of effective economic independence, must be profitable and must constitute part of a trans-African system, and the investments already made for the company can only be justified if the company's economic policy is dynamic and properly managed and if its operational capacity is enhanced. Lastly, concrete studies have to be carried out for the development of domestic aerodromes.

Consequently, the present project is aimed at providing the expert appraisal necessary for the management of the airport and the airline. It is also aimed at providing the expert know-how necessary for carrying out engineering studies on the aerodromes, ensuring that the air operations are handled by the nationals and properly training fire-fighting and security teams, security personnel and those responsible for aeronautical telecommunication operations. The training of national personnel in all the aeronautical fields of specialization is an urgent necessity which will be carried out both through expert counselling on-the-spot and through fellowships abroad. The training envisaged in keeping with the project also requires the acquisition of specialized pedagogic equipment, especially concerned with flight personnel.

2. Cost

The cost of the project is estimated at $1.76 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$1.76 million

Project No. AIP-05-003

BURUNDI: CONSTRUCTION OF A MAINTENANCE HANGAR

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Construction of a hangar for the repair and maintenance of airoraft

Location: Bujumbura

Cost: $3.47 million

External financing required: $3.47 million

Duration: Two years

Desirable starting date: 1984

Project initiator: Ministry of Transport, Posts and Telecommunications

Project management authority: Air Burundi

II. Description

1. Aim and objective

The long-term objective of the project is to increase the infrastructures for receiving aircraft at Bujumbura's international airport in order to ensure maximum security to aircraft.

The short-term objective is to facilitate the maintenance and repair of aircraft based at Bujumbura or in transit at Bujumbura airport.

2. Nature and constituent parts

The project comprises:

- The drawing up of plans by a drawing office;
- Construction of a technical hangar for the maintenance of aircraft.

III. Justification: economic and financial analysis

1. Context and benefits

Bujumbura airport has no hangar for the maintenance and repair of civil aircraft based at the airport. With the development of the national airline company, this facility has become necessary and even recommended by the International Civil Aviation Organization.

2. Cost

The cost of the project is estimated at $3.47 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$3.47 million

Project No. AIP-05-004

BURUNDI: CONSTRUCTION OF A TECHNICAL BLOCK AT BUJUMBURA AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Construction of a technical block for traffic control, transmission and reception of aeronautical messages as well as for fire-fighting co-ordination

Location: Bujumbura

Cost: $5.30 million

External financing required: $5.30 million

Duration: Three years

Desirable starting date: 1984

Project initiator: Ministry of Transport, Posts and Telecommunications

Project management authority: Civil Aviation Department

Observations: Only the safety of the aircraft and their passengers have been classified here as of priority. The consolidation of other achievements evolving from the project will be catered for by the user, namely the Aeronautical Authority under the supervision of the Ministry of Transport, Posts and Telecommunications. The project management authority will seek the assistance of a design and monitoring office to carry out the project. The maintenance of the technical installations will be entrusted to the technical service of the airport and the civil engineering aspect to the service responsible for the maintenance of administrative facilities while waiting for an independent management body to be wset up.

II. Description

1. Aim and objectives

The long-term objective of the project is to contribute to the expansion of the volume of passenger traffic and freight while the short-term one is to fully ensure air safety in keeping with the international regulations in force.

2. Nature and constituent parts

The project comprises:

- Summary preliminary plan;
- Preliminary study;
- Engineering study;
- Construction of a tower west of the runway in order to have a 360° horizon;
- Construction of a fire-fighting hangar linked directly to the tower;
- Construction of a telegraphic centre;
- Technical training of Burundi technicians.

III. Justification; economic and financial analysis

1. Contert and benefits

The central tower now in use has only a limited vision of ground movements especially around the new parking area which is partially hidden from the view of controllers by the freight hangar. The least problem occurring in this area will not be seen. Furthermore, the building housing the fire-fighting service at the moment is poorly situated. Vehicles have to make three 90° turns in order to get to the runway. The building is also very small and cannot be transformed. The fire-fighting service watch tower is suffering from the same problem as the control tower because aircraft movement on the ground on the side of the new air terminal cannot be seen.

Lastly, the dimensions and layout of the central telecommunications office are not commensurate to those of a radio transmitting/receiving office of an international airport.

This project which is essentially technical cannot have any direct financial impact. However, air traffic studies carried out have shown that:

- Exported air freight will increase from 6,900 tons in 1982 to 32,000 tons by the year 2000, representing an average annual growth rate of 8.9 per cent. The short-term rates from 1982 to 1986 will be 13.9 per cent per year;

- The volume of passenger traffic will increase from 40,000 to 87,000 in 1986 and will attain 210,000 by the year 2000, representing an average annual growth rate of 7.8 per cent.

It is obvious that such growth can only be but beneficial to the economic and touristic development of the country.

2. Cost

The cost of the project is estimated at $5.30 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$5.30 million

Project No. AIP-06-001

CAMEROON: DEVELOPMENT OF PROVINCIAL AIRPORTS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Infrastructural and superstructural development of the four provincial airports

Location: Yaounde, Maroua-Salack, Kribi, Kousseri

Cost: $31.00 million

External financing required: $31.00 million

Duration: One to two years, depending on the airport

Desirable starting date: 1984-1985, depending on the airport

Project initiator: Ministry of Transport

Project management authority: Department of Civil Aviation

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The objective of the project is to adopt African airports to the needs of aircraft whose capacity is justified by the volume of traffic.

It is aimed at providing Cameroon's provincial airports with infrastructural facilities that would enable them to cope with commercial traffic of the network.

2. Nature and constituent parts

Below is an item-by-item description of the four components of the project:

Yaounde

- Extension of the present strip to the standard required by three-engined and four-engined jets;
- Construction of a new terminal with extensions;
- Construction of a technical services building and installation of radio electronic equipment.

The airport at Yaounde, the political capital of the country, is currently limited to the reception of B-737s and this makes it necessary to change aircraft at Douala.

Maroua-Salack

- Reinforcement of the runway and parking area surfaces;
- Enclosure of the airport;
- Installation of radio electronic equipment.

These extensions are intended for the expansion of B-737 services which are at the moment limited in frequency and load.

Kribi

- Reinforcement and extension of the landing strips;
- Construction and equipment of a technical services building;
- Construction of an air terminal;
- Construction of a cargo shed;

- Installation of transmitting/receiving stations;
- Development of air safety and fire-control facilities;
- Construction of a hangar;
- Installation of radio navigation and landing aids;
- Electric beacons.

The work will make it possible to receive B-737s.

Kousseri

- Construction of a B-737 type airstrip;
- Construction of an air terminal;
- Construction of a technical services building;
- Development of air-safety and fire-control facilities;
- Installation of radio electronic equipment.

III. Justification; economic and financial analysis

1. Context and benefits

The project will help to sustain the development of Cameroon's economy and tourist industry while making the development of air transport economically viable.

It will eliminate the need for Yaounde-bound incoming passengers to change aircraft as it will for outward-bound passengers embarking at Yaounde. It will reduce the cost of air transport.

2. Cost

The cost of the project is estimated at $31.00 million, broken down as follows:

Airport	In million $
Yaounde	10.00
Maroua-Salack	7.50
Kribi	8.50
Kousseri	5.00
Total	31.00

Below are the duration and desirable starting dates for the projects at each of the airports:

Airports	Starting date	Project duration
Yaounde	1984	1½ to 2 years
Maroua-Salack	1985	1 year
Kribi	1984-1985	1½ years
Kousseri	1984	1 to 1½ years

IV. Status

The engineering studies have been carried out.

V. Financing

Local financing received or expected: Nil
External financing secured: Nil
External financing required: $31.00 million

Project No. AIP-07-001

CAPE VERDE: EXPANSION OF PRAIA AND MINDELO AIRPORTS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Extension of the runway of the airport at Praia (Sao Tiago) from 1,200 to 1,400 metres for HS-748, F-27 aircraft. Extension of Mindelo Airport

Location: Praia and Mindelo

Cost: $9.00 million

External financing required: $9.00 million

Duration: Six months

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: Civil Aviation Department

II. Description

1. Aim and objective

The objective of the project is to promote the development of civil aviation and tourism in Cape Verde by extending the runway at Praia airport and improving the Mindelo airport.

2. Nature and constituent parts

The project consist of extension of the runway at Praia airport from 1,200m to 1,400m and expansion of facilities at the Mindelo airport.

III. Justification; economic and financial analysis

1. Context and benefits

The Praia airport was designed to accommodate Twin Otter aircraft with the development of tourism and the increase in regular traffic, the capacity of the Twin Otter aircraft has become relatively small and can no longer absorb the increased traffic inspite of more frequent schedules. According to a study carried out for the Cape Verdian authorities, the fleet of aircraft should be replaced, and the choice for replacement is the HS-748 aircraft. The runway at Praia airport should therefore be extended to accommodate this type of aircraft. The increase in tourism also calls for expansion of the Mindelo airport which was designed for domestic traffic.

2. Cost

The cost of the project is $9.00 million.

IV. Status

ICAO undertook studies on the project and the extension of the runway at Praia airport is underway.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$9.00 million

Project No. AIP-07-002

CAPE VERDE: DEVELOPMENT OF CIVIL AVIATION

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Construction of landing strips at Fogo, Brava, Sao Nicolau and extension of landing strip at Sao Vicente

Location: Cape Verde

Cost: $6.70 million

External financing required: $6.70 million

Duration: Two years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: Civil Aviation Department

II. Description

1. Aim and objective

The project meets the objective of providing African airports with infrastructures that would enable them to cope safely and efficiently with the rising volume of air traffic while helping at the same time to bolster the development of African economies.

It is aimed at developing Cape Verde's civil aviation potential since the country's position as an archipelago located more than 500 km from the African coast makes air transport a vital lifeline for economic development.

2. Nature and constituent parts

The composite project consists of:

- Construction of landing strips at Fogo and Brava;
- Reconstruction of the landing strip at Sao Nicolau;
- Extension and electrification of the landing strip at Sao Vicente.

III. Justification: economic and financial analysis

1. Context and benefits

A survey (RAF/74/021) carried out in 1976 showed the need for developing Cape Verde's civil aviation potential. Since then several technical studies have been carried out as have feasibility studies for the improvement of infrastructures.

Barring isolated activities undertaken by the Government none of these highly recommended projects surveyed by experts and missions has been financed or commenced.

The rapid and comprehensive implementation of this project is indispensable if the archipelago is to develop. The project would improve security which is far from satisfactory at present and guarantee increased productivity.

The work to be carried out on these airports is necessitated by their rudimentary facilities that offer no safety guarantees or possibilities for development.

The projects envisaged are essential for the viable operation of an air-link service.

2. Cost

The total cost of the project is $6.70 million, broken down as follows:

	In million $
Construction of the landing strips at Fogo and Brava	2.70
Reconstruction of the landing strip at Sao Nicolau	1.00
Extension and electrification of landing strip at Sao Vicente	3.00
Total	6.70

IV. Status

No information available.

V. Financing

Local financing received or expected : Nil
External financing secured: Nil
External financing required: $6.70 million

Project No. AIP-08-001

CENTRAL AFRICAN REPUBLIC: EXTENSION OF BANGUI (M'POKO) AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Lengthening of the runway to 3,100 m and resurfacing of the soft shoulders in order to consolidate the lateritic gravel which is dangerous for jet aircraft

Location: Bangui

Cost: $18.70 million

External financing required: $18.70 million

Duration: Two years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Civil Aviation

Project management authority: Agence pour la securité de la navigation aérienne en Afrique et à Madagascar (ASECNA)

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The objective of this project is to adapt African airports to keep pace with the development of air transport and changes in its characteristics. Its aim is to enable the Central African Republic, which is a land-locked country, to own and operate an international airport capable of accommodating wide-body aircraft in conditions of safety that would satisfy international standards, thus helping to open up the country.

Because of difficulties of access to the sea (no railway and an inadequate road network), the Central African Republic is constantly suffering from delays in the deliveries of imports from and the despatch of exports to neighbouring ports.

Air transport could be a means of opening up the country provided that there are adequate aeronautical facilities for the most advanced aircraft.

2. Nature and constituent parts

The project involves the lengthening of the runway and includes the following:

- Lengthening of the runway to 3,100 m with an extension of 100m including a 20 metre-long area for emergency stopping in case of takeoff failure;
- The construction of reinforced concrete structures designed to cover the drainage system, situated to the south of the parking area ; this would make future expansion possible in this area which is already congested;
- Resurfacing the soft shoulders of the existing road so as to consolidate permanently the loose laterite chippings which are thrown up in the air when big aircraft land or take off, thus putting the jet engines at risk;
- Installation of runway lighting and telecommunication equipment which would be needed as a result of the lengthening of the runway.

III. Justification; economic and financial analysis

1. Context and benefits

The Bangui-M'Poko airport is the only international airport in the Central African Republic. It is therefore a vital link for strengthening and developing its economic relations with the rest of Africa and of the world.

DC-8/63s and DC-8/53-55s, as well as DC-10s, encounter difficulties in using the existing 2,600 metre-long runway for long-distance flights. Furthermore DC-10s cannot take off with a full load from Bangui-M'Poko airport, even for medium-distance flights, (Bangui/N'Djamena or Bangui/Brazzaville).

The implementation of this project would enable the considerable increase in traffic (passenger and freight) to be met and would also enable the airport to be operated smoothly and safely in accordance with ICAO standards.

2. Cost

The cost of the project is estimated at $18.70 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured :	Nil
External financing required:	$18.70 million

Project No. AIP-10-001

COMOROS: ASSISTANCE FOR THE DEVELOPMENT OF MOHELI AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Purchase and installation of specialized equipment

Location: Fomboni (Moheli)

Cost: $0.65 million

External financing required: $0.65 million

Duration: One year

Desirable starting date: 1985

Project initiator: Ministry of Transport and Tourism

Project management authority: Civil Aviation Department

II. Description

1. Aim and objective

The aim of the project is to improve safety conditions at Fomboni airport and contributes to the development of tourism.

2. Nature and constituent parts

The project consists of:

- Construction of a control tower;
- Construction of an airport terminal and an aircraft hangar;
- Provision of a 25 KVA generating set;
- Provision and installation of 2-BAR VASIS equipment;
- Rehabilitation of markers;
- Provision of an E/K VHF;
- Provision of an E/K SSB
- Provision of meteorological equipment and an NDB;
- Training of an electrician and a tower controller.

III. Justification; economic and financial analysis

1. Context and benefits

The development of Fomboni airport is seen as the prerequisite for improving air transport between the islands. This airport is expected to experience an increase in the volume of traffic handled as a result of the tourism programme to be set up and the increase in the number of passengers from the Comoros travelling from one island to another.

2. Cost

The cost of the project is $0.65 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$0.65 million

Project No. AIP-10-002

COMOROS: ASSISTANCE FOR THE DEVELOPMENT OF ANJOUAN AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Purchase and installation of specialized equipment

Location: Anjouan

Cost: $1.00 million

External financing required: $1.00 million

Duration: One year

Desirable starting date: 1984

Project initiator: Ministry of Transport and Tourism

Project management authority: Civil Aviation Department

II. Description

1. Aim and objective

The project is aimed at improving security at Anjouan airport which at present is not being operated in accordance with ICAO safety standards.

2. Nature and constituent parts

The project consists of:

- Extension of the airport terminal and renovation of the technical blocks;
- Construction of a new control tower;
- Provision of a 25 KVA generating set;
- Setting up of a maritime meteorological station;
- NDB markers;
- Training of three senior meteorological technicians, one senior electrician and one diesel engine technician.

III. Justification; economic and financial analysis

1. Context and benefits

Ouani Airport up to now has no basic reception facilities for passengers and cargo. Safety conditions at the airport are also inadequate and there is absolutely no meteorological station on the island capable of meeting the requirements of civil aviation and other users such as maritime transport, agriculture, town planning, etc.

2. Cost

The cost of the project is $1.00 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$1.00 million

Project No. AIP-10-003

COMOROS: ASSISTANCE TO THE CIVIL AVIATION AUTHORITIES

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Technical assistance

Location: Moroni

Cost: $0.15 million

External financing required: $0.15 million

Duration: Six months

Desirable starting date: 1983

Project initiator: Ministry of Transport and Tourism

Project management authority: Civil Aviation Department

II. Description

1. Aim and objective

The aim of this project is to define a plan to serve as a framework for all development activities in the field of civil aviation.

2. Nature and constituent parts

The project calls for:

- An expert adviser on civil aviation for six months;
- An expert adviser on air law for six months.

III. Justification; economic and financial analysis

1. Context and benefits

No national regulations on aeronautics exist at present in the Comoros. In order to enable civil aviation personnel to have a basic reference and working document, the technical assistance of two experts charged with drawing up a civil aviation code for the Comoros and carrying out a study of the sectoral development plan is absolutely necessary.

2. Cost

The cost of the project is $0.15 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$0.15 million

Project No. AIP-10-004

COMOROS: TRAINING OF CIVIL AVIATION AND AIRPORT SUPERVISORY PERSONNEL

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Vocational training and fellowships

Location: Central administration and airports

Cost: $1.50 million

External financing required: $1.50 million

Duration: Three years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Tourism

Project management authority: Civil Aviation Department

II. Description

1. Aim and objective

The aim of this project is to provide the central administration and the airports with Comorian experts specialized in civil aviation.

2. Nature and constituent parts

The project comprises the provision of 26 fellowships, broken down as follows:

- One civil aviation engineer for the Civil Aviation Department;
- One electronics engineer and three senior electronics technicians for the maintenance of telecommunication equipment;
- One meteorological engineer (weather forecaster);
- Three air traffic controllers and three aeronautical information technicians for air navigation;
- One electrical engineer, three diesel engine technicians and three airport electricians for the power station;
- One airbase civil engineer for the airport infrastructure unit;
- Three supervisory staff for the fire-fighting service;
- Two professional first-rate pilots and one mechanical engineer for Air Comores.

III. Justification; economic and financial analysis

1. Context and benefits

The Comoros has no senior personnel specialized in aeronautics. Civil aviation administration as well as airport management suffer from a lack of supervisory, technical and administrative staff. The key areas of operation are handled by expatriates.

2. Cost

The cost of the project is estimated at $1.50 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	**Nil**
External financing secured:	**Nil**
External financing required:	**$1.50 million**

Project No. AIP-10-005

COMOROS: IMMEDIATE PROVISION OF ADDITIONAL EQUIPMENT FOR HAHAYA, OUANI AND FOMBONI AIRPORTS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Purchase and installation of specialized equipment

Location: Hahaya (Grande Comore), Ouani (Anjouan), Fomboni (Moheli)

Cost: $0.787 million

External financing required: $0.787 million

Duration: One year

Desirable starting date: 1983

Project initiator: Ministry of Transport and Tourism

Project management authority: Civil Aviation Department

II. Description

1. Aim and objective

The aim of this project is to improve the safety conditions at Hahaya, Ouani and Fomboni airports and contributes to the increase in traffic due to the expansion of tourism.

2. Nature and constituent parts

The project involves the acquisition of two fire-fighting vehicles with a capacity for holding approximately 450 kg of fire extinguishers each, chemical agents in powder form and 375 litres of aqueous film forming foam and the acquisition of one Zodiac-type boat with a capacity of 20 passengers for Hahaya and two Zodiac-type boats with a capacity of 10 passengers each for Ouani and Fomboni airports. The project also involves the purchase of two 200 KVA generating sets for Hahaya Airport. The project will require the training of four fire-fighting and rescue supervisory staff, five routine personnel, eight firemen, drivers, two maintenance employees and two technicians for the power station.

III. Justification; economic and financial analysis

1. Context and benefits

The absence of fire-fighting and rescue equipment at Anjouan and Moheli Airports seriously endangers air transport between the islands. The fact that these two airports are still being kept open to public air traffic is a basic threat to security and contrary to the universally accepted practice.

The generating sets at Hahaya Airport have become obsolete. The airport has just been provided with a generating set but for the power station to function properly, it is necessary to buy two other generating sets to supply power to the new regional telecommunication installations which were to go into operation in 1983.

2. Cost

The cost of the project is estimated at $0.787 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$0.787 million

Project No. AIP-10-006

COMOROS: IMPROVEMENT OF INSTALLATIONS AT HAHAYA AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Construction, provision and installation of technical equipment

Location: Hahaya (Grande Comore)

Cost: $8.60 million

External financing required: $6.88 million

Duration: Three years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Tourism

Project management authority: Civil Aviation Department

II. Description

1. Aim and objective

The major aim of this project is to provide the archipelago with the best conditions for receiving wide-body aircraft such as the B-747 and promote the development of passenger and cargo traffic.

2. Nature and constituent parts

The project comprises the following:

Extension work: Construction of an aircraft hangar and a cargo shed; widening of the shed for fire-fighting vehicles; offices for the management and accommodation for personnel;

- Provision of double ILS;
- Provision of the DME marker coupled with the VOR;
- Provision and installation of a 3-BAR VASIS;
- Provision of an NDB marker;
- Installation of an antenna so as to ensure an improvement in the VHF coverage of Grande Comore;
- Provision and installation of an AVSEC system (for luggage inspection) and the training of personnel needed to operate it;
- Provision of a 10-cm meteorological radar system;
- A car for the project;
- A fire-fighting vehicle with a high storage capacity (11,000 litres of water);
- A runway vehicle equipped with T B F for action by fire-fighting service.

Training of personnel: One electronics engineer; five high-level electronics specialists; one meteorological engineer; one electrical engineer; one project co-ordinator for 36 months.

III. Justification; economic and financial analysis

1. Context and benefits

For tourism to develop and for the various activities aimed at opening up the country to be carried out, the country needs to be provided with an international airport which can receive wide-body aircraft both day and night. The implementation of the plan to enhance tourism will lead to an increase in the volume of passenger and cargo traffic.

2. Cost

The cost of the project is estimated at $8.60 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$1.72 million
External financing secured:	Nil
External financing required:	$6.88 million

Project No. AIP-11-001

CONGO: REHABILITATION AND CONSTRUCTION OF SIX PROVINCIAL AIRPORTS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Renovation of the bitumen surfaced runways: extension of the length to 2,200 m, and the width to 30m; installation of simple lighting facilities; construction of an air terminal for each locality. Work on the Impfondo airfield will be limited to extending the runway by 400 m, constructing an air terminal and installaing simple lighting facilities

Location: Ouesso, Loubomo, Sibiti, Djambala, Owando, Impfondo

Cost: $59.42 million

External financing required: $44.28 for the Loubomo, Sibiti, Djambala and Owando airports

Duration: Five years

Desirable starting date: Early 1983

Project initiator: Ministry of Transport and Civil Aviation

Project management authority: Civil Aviation Department

II. Description

1. Aim and objective

The aim of the project is to develop domestic airports so as to contribute to the development of national and international air transport.

2. Nature and constituent parts

The project comprises:

(a) For the Ouesso, Sibiti, Loubomo, Djambala and Owando airfields:

- Extension of the bitumen surfaced runway to 2,200 m long and 30 m wide;
- Installation of simple lighting facilities;
- Construction of an air terminal;
- Construction of a control tower.

(b) For the Impfondo airfield:

- Extension of the bitumen surfaced runway to 400 m;
- Installation of simple lighting facilities;
- Construction of an air terminal.

III. Justification; economic and financial analysis

1. Context and benefits

The project will open up the country to the Pointe-Noire port, to Brazzaville and to neighbouring countries and will help develop the country by making it more accessible, and improving domestic services.

As far as the economy is concerned, it will open up the northern parts of the country which are rich in forestry and agricultural resources and iron ore in the Souanka region.

2. Cost

The cost of the project is estimated at $59.42 million.

IV. Status

1. Impfondo airfield (as at 30 November 1982)

- clearing and levelling of land completed;
- 50 per cent of the work completed with respect to the construction of the air terminal.

2. Ouesso airfield (as at 30 November 1982)

- 95 per cent of the land clearing completed;
- 65 per cent of the land levelling completed.

3. No actual work has started on the Loubomo, Sibiti, Djambala and Owando airfields.

ASECNA is undertaking studies on a contract worth almost $1.00 million being funded by the Congo.

V. Financing

Local financing received or expected:	$15.14 million
External financing secured:	Nil
External financing required:	$44.28 million

Project No. AIP-12-001

DJIBOUTI: EQUIPMENT AND STRENGTHENING OF INFRASTRUCTURE FOR IMPROVING SAFETY

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Strengthening of the runway and parking areas; construction of a fire station

Location: Djibouti

Cost: $3.20 million

External financing required: $2.27 million

Duration: One year

Desirable starting date: 1984

Project initiator: The Government

Project management authority: Djibouti Airport

II. Description

1. Aim and objective

The objectives of the project are to maintain the basic airport infrastructure, ensure that all types of aircraft, particularly wide-body planes (B-747, A-300) can be accommodated, and to ensure that international safety standards are complied with.

2. Nature and constituent parts

The project consists of:

- Rehabilitation of runway shoulders (blast fences) whose deterioration could severely impair runway utilization; strengthening by-pass taxiways and parking areas used for heavy aircraft;

- Construction of a rescue/fire-fighting facility operating around the clock and equipped with special materials.

III. Justification; economic and financial analysis

1. Context and benefits

Implementation of this project is a prerequisite for accommodating wide-body aircraft which presently constitute approximately one-half of all commercial traffic (passengers and freight).

At the present time the runway surface is partially defective.

Rescue and fire-fighting personnel and their vehicles are currently housed in the old airport terminal, where facilities are poor.

The earliest possible completion of this project is of the utmost importance considering air transport safety regulations in force and the fact that Djibouti must maintain its status as an international airport.

Cost

The cost of the project is estimated at $3.20 million, broken down as follows:

	In million $
- Construction of rescue/fire-fighting facility	0.20
- Infrastructure improvement	3.00
Total	3.20

IV. Status

No information available.

V. Financing

Local financing received or expected: $0.93 million
External financing secured: Nil
External financing required: $2.27 million

Project No. AIP-12-002

DJIBOUTI: EXTENSION OF THE DJIBOUTI AIRPORT PASSENGER TERMINAL

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Extension of the Djibouti airport passenger terminal

Location: Djibouti

Cost: $24.30 million

External financing required: $24.30 million

Duration: 18 months

Desirable starting date: 1984

Project initiator: The Government

Project management authority: Djibouti Airport

II. Description

1. Aim and objective

The objective of the project is to make it possible to handle satisfactorily the steadily growing passenger traffic.

2. Nature and constituent parts

The project consists in carrying out extension work on the passenger terminal and improving the present premises.

III. Justification: economic and financial analysis

1. Context and benefits

The present terminal which was commissioned in 1977 has become inadequate and unsuitable for the volume of the local passenger traffic which has rapidly increased and is concentrated on fewer flights.

The extension will make it possible to solve the present congestion problem. There will be one zone for domestic traffic and another for international traffic.

2. Cost

The cost of the project is estimated at $24.30 million.

IV. Status

The Islamic Development Bank (IDB) has expressed interest in financing the project.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$24.30 million

Project No. AIP-12-003

DJIBOUTI: DEVELOPMENT OF THE FREE INDUSTRIAL ZONE OF THE AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: evelopment of the free industrial zone of the airport

Location: Djibouti

Cost: $2.20 million

External financing required: $2.20 million

Duration: One year

Desirable starting date: 1983-1984

Project initiator: The Government

Project management authority: Djibouti Airport

II. Description

1. Aim and objective

In order to strengthen the important role that Djibouti plays in trade and transport, the airport authority is planning to create a free industrial zone.

The objective is to enhance the development of commercial and industrial activities linked with the airport and the commercial port.

2. Nature and constituent parts

An area of about 9 hectares will be developed. It will be linked to the town and the port by road and rail.

III. Justification; economic and financial analysis

1. Context and benefits

Djibouti airport also serves as a transit port and as an air-to-sea link (Djibouti port).

Freight takes up an important share of Djibouti airport's total traffic.

2. Cost

The cost of the project is estimated at $2.20 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$2.20 million

Project No. AIP-12-004

DJIBOUTI: EXTENSION OF THE AIRPORT FREIGHT DEPOT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Extension of the freight depot of Djibouti airport

Location: Djibouti

Cost: $2.00 million

External financing required: $2.00 million

Duration: One year

Desirable starting date: 1984

Project initiator: The Government

Project management authority: Djibouti Airport

II. Description

1. Aim and objective

The objective of the project is to provide Djibouti airport with facilities to cope with an increasing volume of cargo.

2. Nature and constituent parts

The projects involves the construction of another covered 1,100 m^2 shed and a 3,000 m^2 cold store.

III. Justification; economic and financial analysis

1. Context and benefits

At the moment Djibouti airport has a 1,100 m^2 covered freight depot. This infrastructure is just about sufficient for local freight traffic. Moreover, it does not allow for the handling of perishable goods. Prospects for Djibouti's development as a redistribution centre both with regard to air-to-air and air-to-sea transit require that the airport be provided with adequate facilities.

The present freight depot does not allow for the handling of all the freight (domestic and international) which is ever-growing. Djibouti's cargo terminal for handling freight can serve other countries which are land-locked (CEPGL countries).

2. Cost

The cost of the project is estimated at $2.00 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$2.00 million

Project No. AIP-12-005

DJIBOUTI: TRAINING AND REFRESHER COURSES FOR TECHNICAL PERSONNEL

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Training and refresher courses for technical personnel

Location: Djibouti

Cost: $1.50 million

External financing required: $1.50 million

Duration: Ten years

Desirable starting date: 1984

Project initiator: The Government

Project management authority: Department of Civil Aviation and Meteorology

II. Description

1. Aim and objective

The objective of the project is to provide technical staff with the required technical qualifications for the administration and operation of civil aeronautical and meteorological services and of the air transport services of the national airline, Air Djibouti.

2. Nature and constituent parts

The project consists of providing scholarships for training and refresher courses as follows:

Training:

- Five civil aviation engineers - for operating a meteorological office; four professional IFR pilots; two air transport economists; four administrative officers for management and marketing; 11 aircraft technicians: aviation/operations/meteorology; 10 aircraft mechanics (body/engines/equipment);

Refresher courses:

- Two airline pilots; and two aviation technicians (VOR/DME and ILS).

III. Justification; economic and financial analysis

1. Context and benefits

Air transport is an essential factor in Djibouti's economic development, especially the development of tourism. This is all the more so because owing to its geogrphical situation, Djibouti's Ambouli International Airport is at the centre of major air routes between Europe and the Indian Ocean.

The proposed training and refresher course programme for technical personnel will enable Djibouti to ensure greater safety of flights with the help of competent technicians and to develop the activities of its national airline with the help of skilled flight personnel.

2. Cost

The cost of the project is estimated at $1.50 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$1.50 million

Project No. AIP-13-001

EGYPT: CONSTRUCTION OF AN ENGINEERING AND MAINTENANCE COMPLEX FOR EGYPT AIR

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Turnkey project; construction of a complex for the maintenance, repair and overhauling of mainly wide-body aircraft and components

Location: Cairo International Airport

Cost: $30.00 million

External financing required: $22.50 million

Duration: Four years (1984-1987)

Desirable starting date: Beginning of 1984

Project initiator: Head Office, Egypt Air

Project management authority: Egypt Air Technical Division

II. Description

1. Aim and objective

The objective of the project is to provide Egypt Air with appropriate facilities for maintaining and overhauling its fleet.

2. Nature and constituent parts

The project consists of constructing:

- a hangar capable of accommodating two wide-body aircraft or one wide-body and two other smaller aircraft, and which can be extended at a later date if necessary;
- workshops for repairs unit and EIRA components;
- stores;
- offices.

III. Justification; economic and financial analysis

1. Context and benefits

Egypt Air plans to have a fleet of eight Airbus A-300 and two wide-body long-range aircraft besides the existing Boeing 707 and 737 aircraft. At the moment Egypt Air has no facilities for servicing wide-body aircraft and this complex is badly needed. This complex will provide maintenance, repair and overhaul facilities for Egypt Air's fleet besides technical services for all African and Arab airlines in the surrounding area.

With its highly experienced and cheap manpower, Egypt Air will benefit from this project by utilizing the complex to perform high level maintenance, repairs and overhauling at competitive prices for Egypt Air and for other African and Arab airlines. This complex will enable Egypt Air to save money on maintenance work now carried out on their aircraft by other airlines and paid for in hard currency. The technical services Egypt Air will be able to provide to other airlines will generate hard currency.

2. Cost

The cost of project is estimated at $30.00 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$7.50 million (Egypt Air)
External financing secured:	Nil
External financing required:	$22.50 million

Project No. AIP-13-002

EGYPT: ESTABLISHMENT OF A TRAINING CENTRE FOR TECHNICAL AND COMMERCIAL PERSONNEL

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Construction of a technical and commercial training centre

Location: Cairo Airport

Cost: $2 million

External financing required: $1.50 million

Duration: 1984-1986

Desirable starting date: 1984

Project initiator: Head Office, Egypt Air

Project management authority: Head Office, Egypt Air

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

Provide training programmes on a scheduled basis, especially tailored to meet airlines training requirements prepared in accordance with ICAO/ IATA and AFRAA training standards in the areas of general management, personnel development, commercial and administration aspects dealing with, but not limited to, passengers and cargo sales and services and marketing.

2. Nature and constituent parts

The project consists of the construction on a new site of a training complex and a well-equipped laboratory.

III. Justification; economic and financial analysis

1. Context and benefits

Part of the training complex has already been established and is providing training in the following areas:

(a) Ground and simulated training for flight operations, maintenance and ground equipment personnel;

(b) Catering, cabin attendant training including emergency and evacuation procedures;

(c) Language labs.

Throughout 1970-1980 Egypt Air had established specific training centres covering the specialized training to meet airlines requirements in the following areas:

- Operational personnel training (pilots, flight engineers, despatchers, cabin attendants);
- Technical training for aircraft and ground equipment personnel (technicans, skilled labour).

The establishment of the proposed training centre will provide facilities to cover training for 70 per cent of Egypt Air personnel.

The training complex and the specialized training centres together will not only cover Egypt Air's requirements, but can also be expected to cover a percentage of the requirements of African and Middle East countries.

Demand for training of personnel in areas of commercial and financial management and marketing is high in Egypt Air. In the commercial area alone, some 4,000 are to be trained at three levels in three fields of specialization.

Specialized schools in the area that provide training to suit airlines personnel needs are scarce and not up to the required level.

Availability of qualified instructors

The training of qualified instructors is feasible due to the high level of education available in several Egyptian universities, and the existence of experienced and qualified airline personnel within Egypt Air and civil aviation in the fields concerned.

The excellent geographical position of Cairo vis-à-vis air transport (it is the focal point at which air routes from the three main continents converge), the relatively low cost of living, and the availability of accommodation at the airport or in town at reasonable cost, are considered important factors for attracting students from other countries.

Moreover, since training costs in Europe and in the United States are high, and have increased considerably during the last few years, training courses and services can be offered at reasonable and competitive prices.

2. Cost

The cost of the project is estimated at $2.00 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$0.50 (Egypt Air)
External financing secured:	Nil
External financing required:	$1.50 million

Project No. AIP-14-001

EQUATORIAL GUINEA: TRAINING OF TECHNICAL AND ADMINISTRATIVE AIR TRANSPORT PERSONNEL

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Fellowships for the training of technical and administrative personnel: five fellowships, i.e., 50 man/months

Location:

Cost: $0.06 million

External financing required: $0.05 million

Duration: One year

Desirable starting date: 1984

Project initiator: Ministry of Public Works, Transport, Housing and Town Planning

Project management authority: Civil Aviation Department

Observations: This project, transferred from Phase I, comes under the supplementary assistance required by Africa for civil aviation in accordance with the document drawn up by ICAO for the Geneva Pledging Conference

II. Description

1. Aim and objective

The aim of the project is to provide Equatorial Guinea with technical and administrative personnel for civil aviation activities.

2. Nature and constituent parts

The project consists in the provision of five fellowships for a total of 50 man/months for technical and administrative personnel.

III. Justification; economic and financial analysis

1. Context and benefits

Equatorial Guinea does not have skilled aeronautical personnel. This young country which became independent a few years ago has only recently begun to benefit from training programmes for aeronautical personnel. Such training will make it possible for nationals of Equatorial Guinea to replace expatriate personnel.

2. Cost

The cost of the project is estimated at $0.06 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$0.01 million
External financing secured:	Nil
External financing required:	$0.05 million

Project No. AIP-15-001

ETHIOPIA: REHABILITATION AND EXPANSION OF ADDIS ABABA AND ASMARA AIRPORTS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Rehabilitation and lengthening of the runways

Location: Addis Ababa, Asmara

Cost: $110.00 million

External financing required: $110.00 million

Duration: Three years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: Civil Aviation Authority

II. Description

1. Aim and objective

The objective of the project is to raise the standards of the two international airports to the level required by wide-body aircraft. The prospect of gradual replacement of B-707, B-720, DC-8 by wide-body aircraft such as B-747, DC-10 and Airbus make it necessary to undertake the work of strengthening and extension.

2. Nature and constituent parts

The project comprises the following:

Addis Ababa Airport: Pavement strengthening by rehabilitating the runway and taxiway, as well as the parking area; construction of a parallel taxiway which could also serve as an emergency landing strip.

Asmara Airport: Lengthening of the runway by 700 m to 1,400 m in order to increase the capacity to handle heavier aircraft; the strengthening of the runway, taxiway and parking area.

III. Justification; economic and financial analysis

1. Context and benefits

The runway at Bole International Airport, Addis Ababa, is gradually showing signs of heaves and crabks due to intensive use.

The implementation of this project is a vital condition for the future development of the two airports and the retention of their international status both as terminals and as transit stops.

If these airports maintain their present conditions, it would be impossible for them to serve the major direct international routes operated with wide-body aircraft.

2. Cost

The total cost of the project is estimated at $110.00 million, distributed as follows: 1984: $40.00 million; 1985: $35.00 million; 1986: $35.00 million.

IV. Status

The studies of both airports have been undertaken and the project is underway.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$110.00 million

Project No. AIP-15-002

ETHIOPIA: STRENGTHENING AND EXPANSION OF PROVINCIAL AIRPORTS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Rehabilitation and expansion of six regional airports

Location: Assab, Lalibela, Axum, Gondar, Gambella, Arba Minch

Cost: $34.00 million, including $0.60 million for technical studies

External financing required: $34.00 million

Duration: Five years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: Civil Aviation Authority

II. Description

1. Aim and objective

The project meets the objective of improving African airports to enable them to keep pace with the characteristics of aircraft whose capacity is justified by the volume of traffic. Its aim is to provide six Ethiopian airports with the infrastructure necessary for a commercial air transport network.

This planned expansion of the air transport network will lead to three levels of operation:

First level international links (Ethiopian Airlines), with an increase in international stops in Ethiopia,

Second level links of a regional nature (serving the radial lines and the main traffic hubs in Ethiopia) with provincial aerodromes served in turn by the third level.

Third level providing subsidiary lines from the provincial centres towards the interior of the country.

The implementation of this programme involves in the medium term the development of a group of secondary aerodromes.

2. Nature and constituent parts

This project concerns the airports of Assab, Lalibela, Axum, Gondar, Gambella and Arba Minch. It involves:

- Construction of an international level airport at Assab with a capacity to handle wide-body aircraft;
- The construction and strengthening of the runways to accommodate certain types of aircraft (varying according to the aiport concerned; 45,000 lbs for the smallest) in the other five places;
- The purchase of ground equipment, tools and servicing materials.

When completed, this planned improvement and expansion, with the corresponding auxiliary installations, will raise these five airports to the level of aircraft of about 170,000 lbs (B-720).

III. Justification; economic and financial analysis

1. Context and benefits

It is planned that Assab Airport be developed to handle international air traffic. The necessity of raising Assab Airport to the level of international airport is justified as follows:

- Assab, as a point of close proximity to the Middle East countries, will serve as an ideal stage point for the national carrier;
- Because of its proximity to international air routes, it is an airport to which aircraft can be diverted;
- Its relative low elevation will enable better loads to be carried to international markets.

As for the other five airports, the following reasons justify their construction:

- They are tourist centres;
- They are situated in an area where large-scale development is envisaged;
- They are ideally located to serve as hubs for the provincial airstrips.

2. Cost

The total cost of the project is estimated at $34.00 million, including $0.60 million for engineering studies.

The expenditure will be spread over the following periods:

	In million $
1984	1.17
1985	11.84
1986	13.77
1987	5.87
1988	1.35

IV. Status

No information available.

V. Financing

Local financing obtained or expected:	Nil
External financing secured:	Nil
External financing required:	$34.00 million

Project No. AIP-15-003

ETHIOPIA: IMPROVEMENT OF CIVIL AVIATION FACILITIES AND SERVICES AND TRAINING OF AIR TRANSPORT PERSONNEL

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Provision of operational and training equipment, fellowships and various experts

Location: Addis Ababa

Cost: $4.21 million

External financing required: $3.38 million

Duration: Five years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: Civil Aviation Authority

II. Description

1. Aim and objective

The project meets the objective of improving civil aviation facilities and services as well as enhancing the training capability of the Civil Aviation Authority to meet the needs and standards of international and domestic air transport in the country.

2. Nature and constituent parts

The project is concerned with the provision of operational and training equipment, fellowships and experts.

III. Justification; economic and financial analysis

1. Context and benefits

The implementation of the project will make safe and orderly air operations possible by providing for the many needed navigational and telecommunication facilities, and the training of personnel.

2. Cost

The cost of the project is estimated at $4.21 million.

IV. Status

A complete study in co-operation with specialists of the International Civil Aviation Organization has been made and draft project document is prepared.

V. Financing

Local financing obtained or expected:	$0.83 million
External financing secured:	Nil
External financing required:	$3.38 million

Project No. AIP-16-001

GABON: STUDY ON THE CONSTRUCTION OF A NEW AIRPORT AT LIBREVILLE (FIRST PHASE)

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Study on the proposed construction of a new airport for Libreville, construction of two runways, an air terminal and office buildings

Location: Libreville

Cost: $4.00 million

External financing required: $4.00 million

Duration: One year

Desirable starting date: 1984

Project initiator: Ministry of Civil and Commercial Aviation

Project management authority: Secretariat General for Civil and Commercial Aviation

II. Description

1. Aim and objective

This project meets the objective of providing African airports with the necessary infrastructure to cope with the development of air transport.

2. Nature and constituent parts

The proposal is to carry out a study on the proposed construction of a new airport near the city, but outside the area of urban expansion.

The new site has already been chosen.

This project is the first study phase of a master plan designed to meet the country's needs up to the year 2005.

III. Justification; economic and financial analysis

1. Context and benefits

The present international airport at Libreville, where the runway is used by both civilian and military aircraft, can no longer meet current traffic needs and the prospect is one of saturation rendering it necessary to restrict the number of aircraft using the airport.

Furthermore, the airport, in its present location, stands in the way of the only possible direction in which the capital of Gabon can expand naturally, i.e., towards the north.

Libreville airport will be saturated towards 1985 and no extension is possible on its present site. Air traffic at Libreville is growing rapidly and this makes it necessary that the construction of a new airport on another site should start in 1984 so that the new installations could be brought into service about 1989.

2. Cost

The cost of the study is estimated at $4.00 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$4.00 million

Project No. AIP-17-001

GAMBIA: DEVELOPMENT OF CIVIL AVIATION AND PURCHASE OF EQUIPMENT FOR YUNDUM AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Improvement and extension of airport facilities

Location: Yundum International Airport, Banjul

Cost: $5.50 million

External financing required: Nil

Duration: Five years

Desirable starting date: 1983

Project initiator: Ministry of Works and Communications

Project management authority: Civil Aviation Department

II. Description

1. Aim and objective

The main objectives of the development of Yundum Airport are to improve safety and security at the airport and preserve the investment in earlier phases.

2. Nature and constituent parts

The project comprises:
- Improvement and extension of airport facilities;
- Establishment of fire-fighting/rescue services;
- Improvement of airport lighting;
- Management study;
- Minor civil works.

III. Justification; economic and financial analysis

1. Context and benefits

Improved safety and security at Yundum Airport will further stimulate development of the tourism sector, one of the major foreign exchange earning sectors, and stimulate air transport.

2. Cost

The cost of the project is estimated at $5.50 million.

IV. Status

A loan agreement with the African Development Bank/Nigerian Trust Fund has been signed to fund a package of items totalling approximately $5.50 million. The project is underway.

V. Financing

Local financing received or expected:	Nil
External financing secured:	$5.50 million
External financing required:	Nil

Project No. AIP-18-001

GHANA: TRAINING OF TECHNICAL AERONAUTICAL PERSONNEL

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Award of 89 fellowships, representing 566 man/months

Location:

Cost: $1.18 million

External financing required: $0.983 million

Duration: Three years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: Civil Aviation Department

Observations: This project, transferred from Phase I, comes under the supplimentary assistance required by Africa for civil aviation in accordance with the document drawn up by ICAO for the Geneva Pledging Conference.

II. Description

1. Aim and objective

The aim of the project is to provide training for technical personnel for Ghana's civil aviation activities.

2. Nature and constituent parts

The project consists of providing 89 fellowships, representing 566 man/months.

III. Justification; economic and financial analysis

1. Context and benefits

With the development of Ghana Airways domestic and international network, additional personnel are required to meet the demands that will be imposed on the civil aviation sector.

Furthermore, with the implementation of project AIP-18-005 on the modernization and expansion of Kotoko International Airport, fully trained personnel will be needed to ensure that the airport facilities are efficiently maintained to meet ICAO standards.

2. Cost

The cost of the project is estimated at $1.18 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$0.197 million
External financing secured:	Nil
External financing required:	$0.983 million

Project No. AIP-18-002

GHANA: REPLACEMENT OF RADIO-NAVIGATION AIDS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Replacement and modernization of radio-navigation aids

Location: Accra

Cost: $1.79 million

External financing required: $0.287 million

Duration: One year

Desirable starting date: 1984

Project initiator: Ministry of Transport

Project management authority:

Observations: This project comes under the supplementary assistance requested by Africa for civil aviation in accordance with the document drawn up by ICAO for the Geneva Pledging Conference. Project transferred from Phase I.

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II. Description

1. Aim and objective

The aim of this project is to improve air circulation at the level of Accra Airport.

2. Nature and constituent parts

The project consists of the purchase and installation of navigation aids at Accra Airport.

III. Justification: economic and financial analysis

1. Context and benefits

Accra Airport's navigation aids are old and do not function at all times. The installation of new aids will lead to the improvement of air safety and contribute to the development of air service.

2. Cost

Ths cost of the project is estimated at $1.79 million.

IV. Status

No information is available on the project status.

V. Financing

Local financing received or expected:	$1.50 million
External financing secured:	Nil
External financing required:	$0.287 million

Project No. AIP-18-003

GHANA: MODERNIZATION AND EXPANSION OF KOTOKO INTERNATIONAL AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project with subregional implications

Nature: Modernization and capacity expansion: studies, construction and procurement of equipment

Location: Accra

Cost: $27.50 million

External financing required: $27.50 million

Duration: Two years

Desirable starting date: January 1984

Project initiator: The Government

Project management authority: Civil Aviation Department

II. Description

1. Aim and objective

The objective of the project is to modernize and increase the capacity of the Kotoko International Airport.

2. Nature and constituent parts

The project comprises of:

- Study and construction of a new runway capable of taking large jets, (DC-10, L-1011, Air Bus and B-747);
- Construction of a cargo terminal facility to cope with increasing cargo traffic at the airport;
- Engineering design and construction of a satellite lounge for passengers that will facilitate passenger security screening.

III. Justification; economic and financial analysis

1. Context and benefits

The present runway at the airport was not designed for the weight specifications of modern big jets. It therefore breaks up frequently and the airport has to be closed to traffic to enable repairs on the runway to be carried out. Since Kotoko Airport is the only international airport in Ghana, the present runway is a serious handicap to the nation.

The new runway to be constructed will be long enough and more into wind so that big jets can take off with maximum all-up weight.

The new cargo terminal will not only provide adequate facilities to cope with the upsurge of cargo traffic in Ghana but will also serve land-locked countries including Mali, the Upper Volta nd the Niger.

The new cargo terminal will augment the present inadequate cargo capacity of the airport.

The satellite lounge will provide individual gates to the aircraft and also provide accommodation for transit and transfer passengers.

As Ghana is under obligation to conform to ICAO facilitation standards, the proposed satellite lounge will go a long way to fulfill this international obligation.

2. Cost

The total cost of the project is $27.50 million, broken down as follows:

	In million $
New runway	
Study	1.00
Site clearing	0.40
Levelling of site (3.2 m x 0.4 m)	5.20
Drainage	0.70
Runway (3500 m x 60 m)	0.60
Associated taxiway	3.60
ILS, lighting system (approach, runway and taxiway)	1.00
	12.50
Cargo terminal	
Procurement of prefabricated modular steel structures	1.40
Construction	1.70
	3.10
Satellite lounge	
Design	0.50
Complex of five lounges serving five gates	2.40
	2.90
Total	27.50

IV. Status

No information available.

V. Financing

Local financing received or expected : Nil
External financing secured: Nil
External financing required: $27.50 million

Project No. AIP-19-001

GUINEA: STUDY ON THE DEVELOPMENT OF REGIONAL AIRPORTS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Study on the rehabilitation and redevelopment of six regional airports

Location: Labe, Kankan, Faranah, N'zerekore, Siguiri, Sambailo

Cost: $2.22 million

External financing required: $2.22 million

Duration: 18 months

Desirable starting date: 1984

Project initiator: Ministry of Transport

Project management authority: Intercometal-ANSALT (VADUZ-Surni)

II. Description

1. Aim and objective

The project is in line with the objective of providing African airports with infrastructures and superstructures that would enable them to cope with developments in air transport and the changes that they entail.

It is aimed at enabling Air Guinea, the national airline, to cope with the growing domestic traffic.

2. Nature and constituent parts

The project concerns the airports of Labé, Kankan, Faranah, N'zerekore, Siguiri and Sambailo.

The studies to be carried out for each of the airports are as follows:

Labe airport: The foundation of the runway is in disrepair; water seeps through to the surface to lie stagnant; the only aircraft that the airport can receive is the B-707.

Kankan airport: The foundation has worn out and water seeps out of the ground to lie stagnant. The only aircraft that the airport can handle at the moment is the B-707.

Faranah airport: The present runway is short for the IL-18 that now use it.

N'zerekore airport: The laterite surface of the runway is very uneven besides landing strips are few and not well demarcated. The only aircraft that the airport can now receive is the AN-12.

Siguiri Airport: The laterite runway at this airport has an irregular gradient. Safety strips are inadequate and the runway is short for the type of aircraft the airport receives.

Sambailo airport: The surface of the runway is laterite and the safety strips are inadequate while the runway again is short for the AN-24, which the airport receives.

III. Justification; economic and financial analysis

1. Context and benefits

This project is indispensable if Air Guinea is to be in a position to cope in the future, with the significant growth in the volume of the domestic traffic.

The improvement works envisaged are in fact prerequisites for the reception of aircraft under safe conditions and for the provision of the appropriate facilities for air passengers.

2. Cost

The cost of the project is estimated at $2.22 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$2.22 million

Project No. AIP-24-001

LIBERIA: TECHNICAL ASSISTANCE IN THE TRAINING OF AERONAUTICAL PERSONNEL

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Technical assistance in the form of expert instructors, seconded to Liberia, to train air traffic controllers and cockpit personnel

Location: Monrovia

Cost: $1.00 million

External financing required: $1.00 million

Duration: One year

Desirable starting date: 1983

Project initiator: Ministry of Transport and Communications

Project management authority: Civil Aviation Department

Observations: This project, transferred from phase I, comes under the supplementary assistance requested by Africa for civil aviation in accordance with the document drawn up by ICAO for the Geneva Pledging Conference. The project document is in the hands of the Government.

II. Description

1. Aim and objective

The aim of the project is to provide Liberia with personnel for its airports and for Air Liberia, its national airline.

2. Nature and constituent parts

The project calls for the provision of technical assistance in the form of expert instructors to train air traffic controllers and air crews.

III. Justification; economic and financial analysis

1. Context and benefits

In its programme for the development of the air transport sector, Liberia has cited the training of air traffic controllers and air crews as especially important. Both are vital to the functioning of airports and aircraft.

2. Cost

The cost of the project is estimated at $1.00 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$1.00 million

Project No. AIP-26-001

MADAGASCAR: REHABILITATION OF AIRPORT INFRASTRUCTURE AND SUPERSTRUCTURES

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Repair of air strips and construction of terminals and technical blocks at airports served by scheduled flights

Location: Throughout the country

Cost: $15.00 million

External financing required: $15.00 million

Duration: Four years

Desirable starting date: 1984

Project initiator: Ministry of Transport, Supply and Tourism

Project management authority: Air Navigation Services

II. Description

1. Aim and objective

The objective of the project is to improve conditions at the following airports for the HS-748 and B-737 aircraft currently being operated by the national airline:

(a) Those served by HS-748 aircraft: Fianarantsoa, Farafangana, Soalala, Besalampy, Mananara, Avatara, Sainte Marie, Ambatondrazaka, Morafenobe, Ambatomainty, Tsaratanana, Ankavandra, Antsalova, Miandrivazo, Belo-Tsiribihina, Manakara, Maintirano, Morombe, Vohémar;

(b) Those served by B-737 aircraft: Sambava, Toliara, Ivato, Nosy Bé, Antseranana, Toamasina, Tolagnano, as well as the Mananjary and Antalaha airports.

The infrastructure at these airports is in a state of disrepair and some of the airports do not even have the appropriate infrastructure.

2. Nature and constituent parts

The project is in four parts:

- First phase: repair and improvement of airport runways (overlay, bitumen surfacing of earth sections) at the first 26 of the above-mentioned airports;
- Second phase: purchase of equipment for maintaining runways and buildings;
- Third phase: construction of air terminals at the following 16 airports: Farafangana, Soalala, Besalampy, Mananara, Avatara, Ambatondrazaka, Morafenobe, Ambatomainty, Tsaratanana, Ankavandra, Antsalova, Miandrivazo, Belo-Tsiribihina, Manakara, Maintirano, Morombe, Vohémar;
- Fourth phase: construction of technical blocks at the following eight airports: Fianarantsoa, Sambava, Toliara, Antseranana, Tolagnaro, Mananjary, Maroantsetra, Antalaha.

III. Justification; economic and financial analysis

1. Context and benefits

The project should make it possible to rationalize and to make the operation of the present Air Madagascar fleet more economic elimination

of the current operational difficulties related to the poor state and inadequate length or lift of runways.

2. Cost

The total cost of the project is estimated at $42.92 million, of which $15.00 million will be required during the second phase of the Decade. The cost breakdown is as follows:

	In million $
Repair and improvement of 26 airports	38.000
Purchase of equipment:	1.021
- Nine tractors with gyro crushers ($0.50 million)	
- 48 moto scythes ($0.32 million)	
- Two mixers ($0.112 million)	
- Two small earth rollers ($0.045 million)	
- Two concrete mixers ($0.045 million)	
Construction of air terminals at 16 airports	2.800
Construction of technical blocks at eight airports	1.100
Total	42.921

IV. Status

No information available.

V. Financing

Local financing received/expected:	Nil
External financing secured:	Nil
External financing required:	$15.00 million

Project No. AIP-26-002

MADAGASCAR: TRAINING OF AERONAUTICAL PERSONNEL AND TECHNICAL ASSISTANCE

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Fellowships for training in various aeronautical fields; and purchase of support equipment

Location: Antananarivo

Cost: $0.85 million

External financing required: Almost the entire amount: the difference which represents the salaries of fellowship holders under the training component will be financed by the Government

Duration: Four years

Desirable starting date: 1984

Project initiator: Ministry of Transport, Supply and Tourism, Department of Civil Aviation

Project management authority: Department of Civil Aviation, Merchant Marine and Meteorology

II. Description

1. Aim and objective

The objectives of the project are to provide for the air transport sector, personnel with the highest possible skills, to provide the most suitable work facilities and to ensure the safety of civil aircraft.

The three-part objective comprises:

- Basic training for personnel;
- Constantly maintaining the high standard of personnel;
- Purchase of support equipment.

2. Nature and constituent parts

The project is in two parts:

- Training of personnel in the following fields:

  (a) Economies and management;
  (b) Aircraft maintenance and operation;
  (c) Air navigation safety;
  (d) Design, construction and maintenance of airport infrastructure;

- Purchase of support equipment:

  (a) Training equipment;
  (b) Support equipment for inspecting civil aircraft;

  - technical equipment;
  - logistical equipment;
  - specialized library.

III. Justification; economic and financial analysis

1. Context and benefits

(a) "Training": considering that in civil aviation, instruction in the relevant disciplines has to be at an advanced level and that these disciplines are constantly being improved upon, it is essential that future technicians, management staff and engineers are given the appropriate training and that the skills of employees are constantly maintained at the highest level.

(b) "Technical assistance" for the maintenance of civil aircraft: The safety of civil aircraft is a fundamental and indispensable aspect of air transport and of civil aviation in general. The importance of safety can be seen from two angles:

(i) safety per se: civil aviation services cannot exist without ensuring the minimum prerequisite safety, no matter the conditions under which they have developed;

(ii) the repercussions of the lack of safety of civil aircraft on the other aspects of civil aviation such as economy, profitability, efficiency and regularity; in fact even a civil aviation service which satisfies all the safety requirements is not necessarily economic, but no civil aviation service can be economic without meeting the safety standards.

Following the departure of "Bureau Veritas" in 1974 and the technical assistance from Canada in 1980, the national civil aviation services should devote their attention to mobilizing their skills to handle all matters relating to their civil aircraft airworthiness, inspection of technical operations, and accident investigation.

2. Cost

The cost of the project is estimated at $0.85 million, broken down as follows:

Training	In million $
- Training fellowships	0.720
- Teaching equipment (language laboratories - and audio-visual equipment)	0.013
Maintenance of aircraft	0.007
Logistical equipment	0.100
Specialized library	0.010
	0.850

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$0.85 million

Project No. AIP-26-003

MADAGASCAR: REHABILITATION OF THE AIRCRAFT MAINTENANCE CENTRE

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project with regional implications

Nature: Construction of workshops for overhauling and repairing small turbine and piston engines and aircraft equipment; purchase of additional industrial equipment and supply of an initial holding of spare parts

Location: Industrial area, Ivato International Airport, Antananarivo

Cost: $1.55 million

External financing required: Almost the entire amount

Duration: Establishment: Two years; running of the centre over a period of at least 15 years

Desirable starting date: 1984

Project initiator: Ministry of Transport, Supply and Tourism

Project management authority: Air Madagascar

II. Description

1. Aim and objective

The African Civil Aviation Commission (AFCAC) and the African Airlines Association (AFRAA) have collaborated for several years on a study on the integration at the regional level of the facilities necessary for air transport in Africa. The establishment of regional aircraft and equipment maintenance centres is one of the main recommendations of the study. The Ivato-Antananarivo industrial centre is fully in line with this recommendation. Its regional role was confirmed as the airlines of neighbouring countries acquired new aircraft:

- 1972: Maintenance of aircraft belonging to Air Madagascar, the DC-3 of the Malagasy Army and the DC-3s/DC-4s of Air Comores;
- 1975: Maintenance of Air Mauritius' Twin-Otter aircraft;
- 1978: Maintenance of Air Djibouti's Twin-Otter aircraft;
- 1979: Maintenance of the B-737 and Twin-Otter aircraft of Air Burundi;
- 1982: Thorough overhaul of two Twin Otter aircraft belonging to Air Burundi.

The old equipment has become too obsolete and can no longer be renovated adequately to meet current needs (overhaul of small turbine engines, increase in electronic facilities and instruments, expansion of mechanical workshops).

This project will make it possible to establish modern workshops which are more suited to the requirements of new technology and to the foreseeable workload.

2. Nature and constituent parts

The project is in two parts:

- The main part comprises the construction of a building to house a group of overhaul workshops for which construction and equipment plans have already been prepared. These plans were designed to meet as best as possible the defined objectives with respect to the available space and allow for functional equipment;

- The second part of the project, which is less expensive, consists of purchasing and installing new equipment to complement existing ones, and the purchase of an initial holding of spare parts for the equipment and engines to be overhauled.

III. Justification; economic and financial analysis

1. Context and benefits

The Ivato-Antananarivo industrial centre, even in its present state, provides African airlines with reliable services in the geographic region where they operate, and thus makes it unnecessary for them to resort to contractors in far-away countries (Europe or America).

Evidently this geographic proximity reduces delays in servicing and cuts down on transportation and supply costs (transportation of aircraft and equipment to and from service centres).

Moreover, it considerably reduces service cost itself. In fact, the cost of African labour, even highly skilled labour, is far lower than the cost of personnel with similar qualifications in Europe or America.

The savings on labour costs when the services of European or American contractors are not sought is estimated to be 65 per cent of the cost usually charged by these contractors (the cost of spare parts accounts for half of the total cost). Thus, over-all savings on total service costs is 32.5 per cent. The industrial centre already provides maintenance services for part of the fleet but by extending its services to cover equipment and aircraft presently maintained abroad, this project will make it possible to avoid sub-contracting such work. This will result in savings of about $0.90 million on sub-contracting costs which amounts to about $0.293 million per annum for the region as a whole (32.5 per cent of $0.90 million).

The cumulative savings over five and a half years is more than the estimated total cost of the project.

2. Cost

The total cost of the project is estimated at $1.55 million, broken down as follows:

	In million $
Main part: civil engineering and construction of buildings	1.35
Maintenance equipment; including a very small cost for test bench and accessories	0.04
Initial supply of spare parts for the equipment to be overhauled	0.16
Total	1.55

IV. Status

There is no information available on the status of the project.

V. Financing

Local financing expected or received:	Nil
External financing secured:	Nil
External financing required:	$1.55 million

Project No. AIR-26-004

MADAGASCAR: RENEWAL OF NAVIGATIONAL AIDS AND OTHER EQUIPMENT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Rehabilitation and modernization of navigational aids, communications equipment, fire-fighting equipment, visual aids and power plants

Location: Madagascar

Cost: $12.42 million

External financing required: $12.42 million

Duration: Four years

Desirable starting date: 1985

Project initiator: Ministry of Transport, Supply and Tourism

Project management authority: Air Navigation Service

II. Description

1. Aim and objective

The objective of the project is to purchase and install various types of navigational aids and fire-fighting and rescue equipment at domestic airports in the country in order to ensure the safety, reliability and regularity of air services.

2. Nature and constituent parts

The project consists of the purchase and installation of navigational aids and fire-fighting equipment. The project will be executed in five phases as follows:

(a) First phase

Installation of:

- ILS and DME at Nosy Be, Fianarantsoa and Talagnaro airports;
- DME at Ivato and Majunga airports;
- VOR at Maroantsetra, Antsohihy, Mananjary and Fianarantsoa airports;
- VOR/DME at Antseranana and Toliary airports;
- LOCATOR system at 15 airports;
- NDBs at Fianarantsoa, Maintirano, Mananjary and Tolagnaro airports;
- Airfield lighting equipment at the new Antanararivo terminal area (TMA).

The estimated cost of the navigational aids is $7.2 million.

(b) Second phase

Installation of:

- HF/SSB and VHF radio transceivers, monitoring consoles and traffic clocks for aeronautical metereology and air navigation at 17 airports;

- Radio transceivers for the aeronautical fixed telecommunications network (AFTN) at five sub-stations of the Central Telecommunications Bureau, and at 16 peripheral centres.

The estimated cost of these installations is $2.7 million.

(c) Third phase

The purchase of fire-fighting and rescue vehicles and equipment for 12 airports at an estimated cost of $0.88 million.

(d) Fourth phase

Installation of:

- VASIS at 5 airports
- Airfield lighting at 4 airports
- Generators as follows:

20 KVA for one airport
35 KVA for six airports
80 KVA for 10 airports
3 KVA for 10 airports

The cost of the airfield lighting, VASIS and generators is estimated at $0.923 million.

(e) Fifth phase

This phase will consist of the renewal of the four provincial airorar aircraft maintenance centres at Antananarivo, Nosy Be, Morondava and Tolagnaro at a cost of $0.715 million.

III. Justification; economic and financial analysis

1. Context and benefits

The introduction of a B-737 jet aircraft in the domestic service of Air Madagascar has necessitated the upgrading of air navigation and other facilities at a number of domestic airports. International regulations require that the standard of navigational ground equipment be commensurate with the type of aircraft serving the airport so that

safety standards will not be impaired, The growth of domestic passenger traffic in the country has necessitated the use of a larger-capacity aircraft with the attendant need to upgrade the navigational installations.

2. Cost

The cost of the project is estimated at $12.42 million, broken down into the five phases detailed above.

IV. Status

The project has not commenced. It is the wish of the Government to commence it in 1985.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$12.42 million

Project No. AIR-27-001

MALAWI: TRAINING OF PILOTS AND GROUND TECHNICIANS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Training of pilots and aircraft maintenance technicians for Air Malawi

Location: Malawi

Cost: $1.607 million

External financing required: $1.493 million

Duration: Two years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: Air Malawi

Observations: This project, transferred from Phase I, comes under the supplementary assistance required by Africa for civil aviation in accordance with the document drawn up by ICAO for the Geneva Pledging Conference

II. Description

1. Aim and objective

The objective of the project is to provide Air Malawi with qualified personnel.

2. Nature and constituent parts

The project calls for the training of pilots and aircraft maintenance technicians.

III. Justification; economic and financial analysis

1. Context and benefits

Air Malawi does not have enough Malawian pilots. It is therefore obliged to engage expatriate staff which increases operating costs. This training programme will help the airline to put its house in order.

2. Cost

The cost of the project is estimated at $1.607 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$0.114 million	
External financing secured:	Nil	
External financing required:	$1.493 million	$1.493 million

Project No. AIP-27-002

MALAWI: CONSTRUCTION OF A NEW AIRPORT AT MONKEY BAY

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Construction of a new airport at Monkey Bay on a site which can be used all the year round

Location: Monkey Bay

Cost: $1.85 million

External financing required: $1.60 million

Duration: Two years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications (Civil Aviation Department)

Project management authority: Ministry of Works and Supplies

II. Description

1. Aim and objective

The aim of this project is to contribute to the development of tourism in Malawi and to the expansion of the domestic air transport network.

2. Nature and constituent parts

The project comprises the construction of a new airport at Monkey Bay, located at the southern end of Lake Malawi, on a site where it could be open to traffic on a year-round basis.

III. Justification; economic and financial analysis

1. Context and benefits

Monkey Bay is one of Malawi's major tourist attractions. However its potential cannot be fully utilized because the existing airport is only accessible during the dry season.

The implementation of the project would enable Malawi to develop its tourism potential in this area.

2. Cost

The cost of the project is estimated at $1.85 million.

IV. Status

A new site has been selected and technical studies have been completed.

V. Financing

Local financing received or expected:	$0.25 million
External financing secured:	Nil
External financing required:	$1.60 million

Project No. AIP-27-003

MALAWI: CONSTRUCTION OF A NEW AIRPORT AT MZUZU

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Construction of a new airport at Mzuzu

Location: Mzuzu

Cost: $2.50 million

External financing required: $2.125 million

Duration: Two years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: Ministry of Works and Supplies

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The aim of this project are to contribute towards the development of tourism and the expansion of the domestic network.

2. Nature and constituent parts

The project consists of constructing a new airport at Mzuzu on a site where it could be open to traffic all year round.

III. Justification; economic and financial analysis

1. Context and benefits

Mzuzu, in the north-central part of Malawi, is situated in a densely populated and industrial urban area. The existing airport is accessible only in the dry season.

The implementation of the project would enable the airport to be used on a year-round basis, thus contributing to the development of the surrounding areas.

2. Cost

The cost of the project is estimated at $2.50 million.

IV. Status

A new site has been selected and soil studies carried out.

V. Financing

Local financing received or expected:	$0.375 million
External financing secured:	Nil
External financing required:	$2.125 million

Project No. AIP-28-001

MALI: EXPANSION OF BAMAKO-SENOU AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Lengthening and renovation of the runway to enable the airport to accommodate wide-body aircraft (DC-10, B-747, Airbus)

Location: Bamako

Cost: $2.20 million

External financing required: $2.20 million

Duration: Two years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Public Works

Project mamanagement authority: Agence pour la sécurité de la navigation aérienne en Afrique et à Madagascar (ASECNA)

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The aim of the project is to make it possible for the Bamako-Senou runway to be used by wide-body aircraft (DC-10, B-747, Airbus) which have been put or are being put into service by international airlines, including in particular Air Afrique and UTA.

2. Nature and constituent parts

This project consists of lengthening the runway from 2,700 to 3,200 m, enlarging the parking apron and the installing blow-screen strips for B-747s, in addition to the purchase of DME.

III. Justification; economic and financial analysis

1. Context and benefits

The renovation of the runway at Bamako is a prerequisite to continued operation of international and intra-African flights at this airport.

If Bamako-Senou Airport were to be left in its present condition, it would be unable to serve the major direct intercontinental flights by wide-body aircraft and it would be forced to limit its international activities to a connecting-flight role from better equipped neighbouring airports (Abidjan for instance). This would involve a loss of profit-earning capacity for the national company, Air Mali, due to the continued utilization of medium-haul aircraft (B-727, IL-18).

2. Cost

The cost of the project is estimated at $2.20 million, broken down as follows:

	In million $
1984	0.10
1985	1.10
1986	1.00
Total	2.20

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$2.20 million

Project No. AIP-28-002

MALI: STUDY ON THE DEVELOPMENT AND CONSTRUCTION OF DOMESTIC AIRPORTS (PHASE I)

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Improvement of the infrastructure of domestic airfields and engineering studies on the construction of new airports

Location: Tomboctou, Nioro du Sahel, Goudam, Mopti, Yelimané, Nara and Kayes

Cost: $9.029 million

External financing required: $9.029 millio

Duration: Five years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Public Works

Project management authority: Civil Aviation Department

II. Description

1. Aim and objective

The objective of the project is to develop provincial airports so as to promote Mali's tourist programme and to develop its air transport at the international level and with neighbouring countries. The project is thus aimed essentially at constructing runways and serviceable airports capable of handling modern aircraft at most of the tourist centres and at improving facilitation at the airports.

2. Nature and constituent parts

The project entails:

- Extension of the runway at Tombuctou and Mopti du Sahel airports from 1,500 m to 2,000 m and implementation of related development work;
- Redevelopment of Goundam airport; resurfacing of the runway, provision of night marking, construction of a simple airport terminal and a technical block;
- Construction of three new meteorological stations and relocation of the existing four;
- Preliminary studies on the rehabilitation of Gao airport;
- Construction of new airports at Naro and Kayes.

III. Justification; economic and financial analysis

1. Context and benefits

The project falls within the framework aof the Government's desire to develop tourism on the one hand, and to improve the economic conditions and medical facilities in the various regions of the country on the other hand.

Tourism in Mali is hampered by the lack of aeronautical infrastructure and aircraft. The national airline has just purchased a B-737, and already has one B-737-100 and one AN-24.

The purchase of this aircraft has made it possible to solve the problem of equipment. There is the need now to adapt the runways to these types of aircraft to make it possible for them to take off fully loaded.

Mali is a vast country of 1,240,000 km2. Evacuation of the sick and relief services can only be carried out by air transport due to the impassability of the roads all year round. The distribution of foodstuffs and medicine especially in the northern regions is hampered by a lack of adequate infrastructure. This situation delays deliveries.

The deployment of officials throughout the regions depends on the reliability and availability of air transport facilities.

The implementation of this project will make it possible to further the development of tourism and to construct facilities for receiving tourists.

It will also make it possible to improve returns from the aeronautical services (passengers, fuel, etc.) and will improve the distribution of products and the delivery of medicines to all regions on the one hand, and improve the evacuation of the sick on the other hand.

2. Cost

The cost of the project is estimated at $9.029 million, broken down as follows:

	In million $
Extension of Tombouctou airport runway and related facilities	3.400
Extension of Nioro du Sahel airport runway	1.320
Development of Mopti airport	0.972
Rehabilitation of Yelemane airport	0.617
Synoptic stations	0.400
Studies on the construction of airports at Nara and Kayes and rehabilitation of Gao airport	2.320
Total	9.029

IV. Status

The study component of the project is underway.

V. Financing

Local financing received or expected: Nil
External financing secured: Nil
External financing required: $9.029 million

Project No. AIP-29-001

MAURITANIA: STUDY ON THE DEVELOPMENT AND CONSTRUCTION OF DOMESTIC AIRPORTS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Studies on the development of various airports and construction of five others. Master plan in course of implementation

Location: Atar, Kaedi, Bir Boghreim, Tidjikda, Tichit, Aioun-El-Atrouss, Selibaby

Cost: $2.58 million

External financing required: $2.58 million

Duration: Five years (including development and construction)

Desirable starting date: 1984

Project initiator: Ministry of Equipment, Transport and Telecommunications

Project management authority: Civil Aviation Administration

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The project meets the objective of providing African countries with regional airports in order to sustain their economic development and ensure greater integration of their national territory.

2. Nature and constituent parts

The project consists in studies on the construction of airports at Bir Boghreim, Tidjikda, Tichit, Aioun-el-Atrouss and Selibaby, and on the development of Atar and Kaedi air fields.

III. Justification; economic and financial analysis

1. Context and benefits

Mauritania has 22 airports scattered over its territory but most of them have no tarred runway or safety equipment. Only half their number can receive the Fokker 27 aircraft that Air Mauritanie operates.

It is important that the country should be provided with quality airport infrastructural facilities so that air transportation services can be run under regular and satisfactory safety conditions.

The air transport master plan currently being drawn up should on the basis of an analysis of the present transport situation in Mauritania and of the prospective trend of future needs, define the optimal system of operation both for aircraft types, frequencies and schedules and for investment in infrastructure and equipment.

Details of the master plan were completed by the end of 1979. One can therefore give brief indications of the kind of airport infrastructure that should be constructed within the coming decade; efforts should be concentrated mainly on areas furthest removed from the capital; on those which, while relatively closer, are not easily accessible by surface transportation because the routes are either rudimentary or impracticable some part of the year.

The northern part of the country (Bir Boghreim) has little air transportation; the other areas listed for investment are serviced (one to three times a week at the moment), but under risky safety conditions: runways are in such disrepair that landing is dangerous and damaging to aircraft, meteorological services are lacking and no landings can be made at night because there is no lighting. This situation prevent Air Mauritanie from making optimal use of its carriers, not to mention the hindrance of inadequate navigational aids.

All these odds weigh heavily against the development of air transport in Mauritania where it could play a rather crucial role in view of the vastness of the territory and the widespread lack of good surface transportation facilities.

2. Cost

The cost of the project is estimated at $2.58 million.

IV. Status

An air transport master plan is currently being drawn up.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$2.58 million

Project No. AIP-29-002

MAURITANIA: SUPERVISION OF THE AIRPORTS MODERNIZATION PROGRAMME

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Technical assistance and airport engineer for 36 months to supervise the implementation of the programme for the modernization of Mauritanian airports

Location: Nouakchott

Cost: $0.211 million

External financing required: $0.192 million

Duration: Three years

Desirable starting date: 1984

Project initiator: Ministry of Equipment, Transport and Telecommunications

Project management authority: ASECNA

Observations: This kproject, transferred from Phase I, comes under the supplementary assistance required by Africa in the field of civil aviation in accordance with the document drawn up by ICAO for the Geneva Pledging Conference

II. Description

1. Aim and objective

The objective of the project is to prepare a programme and to supervise the maintenance work aimed at bringing Mauritanian airports to ICAO safety standards.

2. Nature and constituent parts

The project consists in the provision of technical assistance in the form of one aeronautical engineer for 36 months to supervise the programme for improving Mauritanian airports.

III. Justification; economic and financial analysis

1. Context and benefits

Mauritania does not have experts who are specialized in problems relating to maintenance and airport safety.

The assistance requested will make it possible for Mauritania to maintain the level of safety required for domestic airports before the training of local staff.

2. Cost

The cost of the project is estimated at $0.211 million.

IV. Status

No information available

V. Financing

Local financing received or expected:	$0.019 million
External financing secured:	Nil
External financing required:	$0.192 million

Project No. AIP-29-003

MAURITANIA: STUDY ON A NEW INTERNATIONAL AIRPORT AT NOUAKCHOTT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Feasibility study and technical study of a project for the construction of a new international airport at Nouakchott

Location: Nouakchott

Cost : $0.075 million

External financing required: $0.075 million

Duration: Six months

Desirable starting date: 1983

Project initiator : Ministry of Equipment, Transport, and Telecommunications

Project management authority: Civil Aviation Administration

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The existing Nouakchott airport is located in an urban area. The objective of the project is to advice on a new site with a view to constructing a new airport since it has become difficult to extend the old airport at its present location.

2. Nature and constituent parts

The project consists in studies to determine the feasibility of relocating the airport and detailed engineering design of the new airport.

III. Justification; economic and financial analysis

1. Context and benefits

The existing airport is not far from the centre of the city. To be able to make any future extensions to the airport which is becoming smaller and smaller for the increased traffic, it is imperative to move the airport to a new site.

2. Cost

The cost of the project is estimated at $0.075 million

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$0.075 million

Project No. AIP-30-001

MAURITIUS: ESTABLISHMENT OF A TRAINING CENTRE

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Composite project comprising the construction of a centre for basic training for technical aeronautical personnel; technical assistance for one expert; grant of fellowships and purchase of training equipment

Location: Port-Louis

Cost: $0.781 million

External financing required: $0.66 million

Duration: Five years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: Civil Aviation Department

Observations: This project, transferred from Phase I, comes under the supplementary assistance required by Africa in the field of civil aviation in accordance with the document drawn up by ICAO for the Geneva Pledging Conference. The project document is available with the Government.

II. Description

1. Aim and objective

The objective of the project is to provide basic training locally for the national aeronautical personnel.

2. Nature and constituent parts

The project comprises:

- construction of a training centre;
- technical assistance of one expert for 76 man months;
- granting of fellowships for 296 man months;
- purchase of training equipment;

III. Justification economic and financial analysis

1. Context and benefits

The Government of Mauritius is in need of qualified civil aviation personnel. It is therefore necessary to embark upon a crash training programme but with reduced cost. The proposed centre will be able to provide basic training for the required staff who could then take over from the expatriate personnel.

2. Cost

The cost of the project is estimated at $0.781 million broken down as follows:

	In million $
- Technical assistance	0.279
- Fellowships	0.296
- Equipment	0.085
- Government contribution	0.121
Total	0.781

IV. Status

No information is available.

V. Financing

Local financing received or expected: $0.121 million
External financing secured: Nil
External financing required: $0.660 million

Project No. AIP-30-002

MAURITIUS: TRAINING OF PILOTS AND MAINTENANCE TECHNICIANS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Granting of fellowships for training seven pilots and five maintenance technicians: total 288 man/months

Location: Port Louis

Cost: $0.346 million

External financing required: $0.288 million

Duration: Four years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: Civil Aviation Department

Observations: This project, transferred from Phase I, comes under the supplementary assistance required by Africa for civil aviation in accordance with the document drawn up by ICAO for the Geneva Pledging Conference. The project document is available with the Government.

II. Description

1. Aim and objective

The objective of the project is to train indigenous pilots for the national airline.

2. Nature and constituent parts

The project comprises training of seven pilots and five aircraft technicians for a total of 288 man/months.

III. Justification; economic and financial analysis

1. Context and benefits

The national airline, Air Mauritius, is in the process of developing its domestic and international network. In order to meet the requirements for this development, it has to train several pilots and aircraft technicians. The pilots can later take over from the expatriate personnel.

2. Cost

The cost of the project is estimated at $0.346 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$0.058 million
External financing secured:	Nil
External financing required:	$0.288 million

Project No. AIP-30-003

MAURITIUS: TECHNICAL ASSISTANCE FOR THE IMPROVEMENT OF THE AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Technical assistance of three experts for four years each: one airport engineer, one electronics engineer and one structural engineer

Location: Plaisance Airport

Cost: $0.726 million

External financing required: $0.660 million

Duration: Four years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: Civil Aviation Department

Observations: This project, transferred from Phase I, comes under the supplementary assistance required by Africa for civil aviation in accordance with the document drawn up by ICAO for the Geneva Pledging Conference. The project document is available with the Government

II. Description

1. Aim and objective

The objective of the project is to develop the airport in Mauritius in order to ensure the safety of aircraft using the airport.

2. Nature and constituent parts

The project consists in providing technical assistance for four years:

- one airport engineer;
- one electronics engineer;
- one structural engineer.

III. Justification; economic and financial analysis

1. Context and benefits

For Mauritius, the main means of communication with the outside world is by air transport. Qualified personnel are therefore needed to ensure the safety of operations at the airport.

2. Cost

The cost of the project is estimated at $0.726 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$0.066 million
External financing secured:	Nil
External financing required:	$0.660 million

Project No. AIP-31-001

MOROCCO: CONSTRUCTION OF A NEW AIRPORT AT AGADIR

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project with subregional implications

Nature: Construction and technical equipment of the new airport

Location: South-western Morocco

Cost: $82.40 million, including $2.40 million for studies

External financing required: $82.40 million

Duration: Approximately four years

Desirable starting date: 1984

Project initiator: Ministry of Equipment

Project management authority: Civil Aviation Department

II. Description

1. Aim and objective

The aim is to build a new airport which conforms to present day safety norms and which can receive all types of aircraft in operation at present. The new airport should be designed for a long-term capacity of 10 million passengers/year and must be surveyed for a capacity of 3 to 4 million.

2. Nature and constituent parts

It has been proposed that the new airport be built in the Admine forest 25 km south-east of Agadir. It will comprise a main runway of 3,600 m by 45 m, a 2,500 m^2 air terminal, a freight terminal and all the buildings and technical installations of an international-standard airport (aeronautical equipment and navigation aids, meteorological equipment).

III. Justification: economic and financial analysis

1. Context and benefits

Because of the quick pace at which the urbanization of Agadir and its environs is taking place, the Agadir-Inezgan airport is getting more and more entangled in the urban network. The situation is becoming of great concern for the villages situated on the axis of the runway. Agadir's touristic trend is continuously on the upsurge (with a growth rate of over 20 per cent). There are plans to provide the area with 56,000 extra beds whereas the intake capacity at present is only 11,350 beds. Accordingly, the growth rate of air traffic is at present more than 30 per cent. The new airport will provide passengers with quick service, security and comfort.

2. Cost

The cost of the project, inclusive of all the equipment, is estimated at $82.40 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$82.40 million

Project No. AIP-31-002

MOROCCO: CONSTRUCTION OF A NEW AIRPORT AT NADOR

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Construction of a new airport 26 km from the town of Nador and equipment with all the modern technical facilities

Location: Northern Morocco

Cost: $20.60 million

External financing required: $20.60 million

Duration: Two years

Desirable starting date: 1984

Project initiator: Ministry of Equipment

Project management authority: Department of Civil Aviation

II. Description

1. Aim and objective

The objective is to complete the industrial and port structures which have already been built or are to be built in the Nador region. The new airport should in the long run be designed for a capacity of 1 million passengers/year, as this is considered as being the maximum traffic that can be handled by this type of airport.

2. Nature and constituent parts

The constituents of the new airport are, inter alia:

- a manoeuvring area comprising a 2900 m take-off strip with possibility of being extended to 3,500 m;
- buildings (air terminal, housing, technical workshops);
- aeronautical equipment and navigation aids;
- meteorological equipment.

III. Justification; economic and financial analysis

1. Context and benefits

The Nador region has been chosen for large-scale industrial development. An iron and steel complex is being built in the area and studies on several other projects, in particular that on the chemical complex dependent on the Office chérifien des phosphates as well as studies on several units for the packaging of fishery products are far advanced. The new airport will fit in and complete the various improvements which are being undertaken for the rapid economic development of Nador.

2. Cost

The cost of the project (including the cost of acquiring land, infrastructure and all the technical equipment) is estimated at $20.60 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$20.60 million

Project No. AIP-33-001

NIGER: TRAINING OF TECHNICAL AERONAUTICAL PERSONNEL

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Granting of 29 fellowships for training technical aeronautical personnel, representing a total of 735 man/months

Location:

Cost: $0.882 million

External financing required: $0.735 million

Duration: Four years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: Department of Civil Aviation

Observations: This project, transferred from Phase I, comes under the supplementary assistance required by Africa for civil aviation in accordance with the document drawn up by ICAO for the Geneva Pledging Conference. The project document is available with the Government.

II. Description

1. Aim and objective

The objective of the project is to enable the civil aviation to play its role in the social and economic development of the country.

2. Nature and constituent parts

The project comprises granting of fellowships for training aeronautical personnel.

III. Justification, economic and financial analysis

1. Context and benefits

The Niger is a land-locked country, and as such, civil aviation plays a very important role in its economic and social development. In view of the numerous problems related to air transport services, the Niger Government has included in its priority projects those related to civil aviation.

2. Cost

The cost of the project is estimated at $0.882 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$0.147 million
External financing secured:	Nil
External financing required:	$0.735 million

Project No. AIP-33-002

NIGER: CONSTRUCTION OF A NEW AIRPORT AT ZINDER

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Construction and operation of a new airport

Location: Zinder

Cost: The cost for the first phase of the project is estimated at $10.00 million

External financing required: $10.00 million

Duration: Two years

Desirable starting date: Studies are under way. Construction has been earmarked for 1983

Project initiator: Ministry of Transport and Communications

Project management authority: Department of Civil Aviation

II. Description

1. Aim and objective

The project aims at providing a new airport at Zinder.

2. Nature and constituent parts

The project comprises, in a first phase:

- Construction of a 2300 m x 45 m run way on a three-layer sand formation with additional length for stopping and for turn-round taxiways of 317.5 m x 23 m and a parking apron of 10 m x 60 m;
- Construction of technical buildings (central technical block, offices, etc.), commercial buildings (passenger and freight terminals) and lodgings;
- Technical equipment (air navigation and meteorology).

III. Justification; economic and financial analysis

1. Context and benefits

The present location of Zinder airport is not suitable for extension. It is therefore advisable to envisage the construction of a new one.

2. Cost

The cost of the first phase is estimated at $10.00 million.

IV. Status

Studies have already been undertaken.

V. Financing

Local financing received or expected:	Nil
External finaincing secured:	Nil
External financing required:	$10.00 million

Project No. AIP-33-003

NIGER: CONSTRUCTION OF AN AIRPORT AT ARLIT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Construction of an airport: passenger and cargo terminals, office building and housing for staff

Location: Arlit

Cost: $26.00 million

External financing required: $26.00 million

Duration: Two years

Desirable starting date: 1983

Project initiator: Ministry of Transport and Communications

Project management authority: Ministry of Works, Transport and Town Planning.

II. Description

1. Aim and objective

This project comes under the objective of opening up certain areas. Its aim is to provide the mining area of north-eastern Niger (Arlit, Ajoutam, Akou-Ararem) with an airport of international class to ensure that there are adequate transport facilities available for the staff working for the mining companies and for the output produced by their activities at Air.

2. Nature and constituent parts

The first phase of the project consists of:

- construction of a 2,000 m x 45 m runway (including an emergency stopping extension of 30 m), together with the necessary parking areas and taxiways;
- construction of a technical block, of passenger and cargo terminals and of a yard for runway equipment;
- installation of NA and MTO technical equipment, with a view to rationalizing operation;
- construction of 20 dwellings for the operating and maintenance staff.

III. Justification; economic and financial analysis

1. Context and benefits

Arlit is situated in the centre of the mining area which makes the greatest contribution to the country's economy. The construction of this airport would make it possible to carry people and equipment from any part of the world without the need for changing aircraft or transshipment at Niamey.

As trade with Europe is especially important, a direct link with Arlit would reduce transport costs for the equipment and materials imported by the mining companies.

The construction of an airport at Arlit should help promote tourism in this especially attractive area.

2. Cost

The first phase of the project is estimated to cost $26.00 million.

IV. Status

No information available

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$26.00 million

Project No. AIP-35-001

RWANDA: EXPANSION OF THE CENTRE FOR TRAINING AERONAUTICAL PERSONNEL

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Expansion of the centre for training aeronautical personnel. This is a composite project comprising technical assistance of two experts/instructors for three years, purchase of training equipment (workshop equipment and audio-visual equipment for the language laboratory), granting of 60 fellowships, representing 700 man/months). This centre trains both flight, cabin and ground personnel

Location: Kigali

Cost: $0.24 million

External financing required: $0.24 million

Duration: Three years

Desirable starting date: 1984

Project initiator: Ministry of Posts and Communications

Project management authority: Department of Civil Aviation

Observations: This project, transferred from the Phase I, comes under the supplementary assistance required by Africa for civil aviation in accordance with the document drawn up by ICAO for the Geneva Pledging Conference. The project document is available with the Government.

II. Description

1. Aim and objective

The objective of the project is to provide basic training locally for local aeronautical personnel, in order to reduce training costs.

2. Nature and constituent parts

The project consists of:

- expansion of the training centre;
- technical assistance of two experts/instructors for three years;
- purchase of training equipment;
- granting of 60 fellowships, representing 700 man/months.

III. Justification; economic and financial analysis

1. Context and benefits

Civil aviation has a vital role in the economic and social development of Rwanda, and it has to train several personnel if it is to be able to play its role efficiently. The staff training exercise will be cheaper if undertaken locally.

2. Cost

The cost of the project is estimated at $0.24 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$0.24 million

Project No. AIP-35-002

RWANDA: DEVELOPMENT OF DOMESTIC AIRPORTS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Improvement of runways and installation of technical equipment (safety and telecommunications)

Location: Gisenyi, Ruhengeri, Kamembe and Gabiro

Cost: $1.44 million

External financing required: $1.20 million

Duration: Five years

Desirable starting date:

Project initiator: Ministry of Posts and Communications

Project management authority: Department of Civil Aviation

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The objective of the project is to improve navigational safety and to help open up the country. The facilities at existing airports which are used by very modern aircraft are faulty.

2. Nature and constituent parts

The project consists of:

- Improvement of runways;
- Installation of air navigation equipment;
- Purchase of fire trucks.

III. Justification; economic and financial analysis

1. Context and benefits

Rwanda is a land-locked country and it does not have all-weather roads. Air transport is therefore one of the safest and most efficient ways of opening up the country.

2. Cost

The cost of the project is estimated at $1.44 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$0.24 million
External financing secured:	Nil
External financing required:	$1.20 million

Project No. AIP-36-001

SAO-TOME AND PRINCIPE: TRAINING OF PILOTS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Granting of fellowships to train four pilots

Location: Sao-Tomé

Cost: $0.091 million

External financing required: $0.076 million

Duration: Three years

Desirable starting date: 1984

Project initiator: Ministry of Construction, Transport and Communications

Project management authority: Department of Civil Aviation

Observations: This project, transferred from Phase I, comes under the additional assistance required by Africa for civil aviation, in accordance with the document drawn up by ICAO for the Geneva Pledging Conference.

II. Description

1. Aim and objective

The objective of the project is to train local pilots with a view to rationalizing the operation of the aircraft belonging to Sao-Tomé and Principe.

2. Nature and constituent parts

The project comprises training of four pilots.

III. Justification; economic and financial analysis

1. Context and benefits

The pilots who will be trained under this project will be able to replace the expatriate personnel whose services are costly.

2. Cost

The cost of the project is estimated at $0.091 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$0.015 million
External financing secured:	Nil
External financing required:	$0.076 million

Project No. AIP-36-002

SAO-TOME AND PRINCIPE: TECHNICAL ASSISTANCE FOR CIVIL AVIATION

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: This project consists, on the one hand, of technical assistance to be provided by experts, granting of fellowships and purchase of training equipment, and on the other hand, of action to improve safety involving the purchase of navigation aids, VASIS, a fire-tender and installation of a marker

Location: Sao-Tomé

Cost: $1.544 million

External financing required: $1.404 million

Duration: Four years

Desirable starting date: 1984

Project initiator: Ministry of Construction, Transport and Communications

Project management authority: Department of Civil Aviation

Observations: This project, transferred from Phase I, comes under the supplementary assistance required by Africa for civil aviation in accordance with the document drawn up by ICAO for the Geneva Pledging Conference

II. Description

1. Aim and objective

The objective of the project is to train aeronautical personnel to ensure air navigation safety.

2. Nature and constituent parts

The project is in two parts:

(a) Training

- technical assistance of experts;
- granting of fellowships and purchase of training equipment;

(b) Safety

- purchase of navigational aids and installation of marking facilities.

III. Justification; economic and financial analysis

1. Context and benefits

International standards require that airports should be equipped with safety facilities.

2. Cost

The cost of the project is estimated at $1.544 million, broken down as follows:

	In million $
Training	0.804
Improvement of safety facilities	0.740
Total	1.544

IV. Status

No information available.

V. Financing

Local financing received or expected: $0.140 million
External financing secured: Nil
External financing required: $1.404 million

The amount of external financing may be broken down as follows (all figures expressed in million $): technical assistance of experts, 0.244; fellowships, 0.3; training equipment 0.12; safety equipment, 0.74.

Project No. AIP-38-001

SEYCHELLES: ACQUISITION OF TELECOMMUNICATIONS AND CONSTRUCTION EQUIPMENT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Purchase of telecommunications equipment and navigation aids

Location: Praslin airport and two other airports located outside the main island

Cost: $5.80 million

External financing required: $5.30 million

Duration: Six months

Desirable starting date: 1984

Project initiator: Ministry of Transport and Tourism

Project management authority: Ministry of Transport and Tourism

Observations: The project, transferred from Phase I, comes under the supplementary assistance required by Africa for civil aviation in accordance with the document drawn up by ICAO for the Geneva Pledging Conference

II. Description

1. Aim and objective

The objective of the project is to improve aeronautical communications facilities and to develop airport infrastructure.

2. Nature and constituent parts

The project consists of:

- Purchase of air navigation aids;
- Extension of the passenger terminal at Praslin airport;
- Construction of a new building for the meteorological services.

III. Justification; economic and financial analysis

1. Context and benefits

Reliable air communication as well as good meteorological forecasts are indispensable to the safety of flights.

2. Cost

The cost of the project is estimated at $5.80 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$0.50 million
External financing secured:	Nil
External financing required:	$5.30 million

Project No. AIP-39-001

SIERRA LEONE: PURCHASE OF MISCELLANEOUS EQUIPMENT FOR AIRPORTS IN SIERRA LEONE

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Purchase of various types of equipment

Location: Freetown, Hastings, Bo, Kenema, Kabala, Bonthe

Cost: $8.31 million

External financing required: $8.31 million

Duration: One year

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: Department of Civil Aviation

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The objective of the project is to install at African airports equipment suitable to the kind of traffic they handle and also to meet international safety standards. Various airports in Sierra Leone will be equipped with the appropriate facilities.

2. Nature and constituent parts

This project involves purchase of the following equipment:

- Aeronautical communications equipment (radio-telephone, radio transmitter and receiver batteries, teleprinter, etc.);
- Safety equipment;
- Fire-fighting equipment;
- Maintenance equipment (tractors and movers);
- General electrical equipment.

III. Justification; economic and financial analysis

1. Context and benefits

The implementation of this project is necessary in order to satisfy the standards set by ICAO, and at the same time to cope with a substantial increase in the volume of traffic. It should be noted that traffic at the Freetown airport is quite heavy.

2. Cost

The cost of the project is estimated at $8.31 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$8.31 million

Project No. AIP-39-002

SIERRA LEONE: DEVELOPMENT OF METEOROLOGICAL TELECOMMUNICATIONS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project with subregional implications

Nature: To provide the facilities for disseminating meteorological information

Location: Freetown

Cost: $1.30 million

External financing required: $1.30 million

Duration: One year

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: The Meteorological Department

II. Description

1. Aim and objective

The objective of the project is to collect, analyse and provide up-to-date meteorological data for aviation purposes and to other interested groups.

2. Nature and constituent parts

The project comprises:

- Purchase of a secondary MMC radar equipment, type SIRIO 2;
- Installation of equipment;
- Construction of building.

III. Justification; economic and financial analysis

1. Context and benefits

At the moment, the Sierra Leonean meteorological services receive their information from Rabat and from Dakar. The collection and retrieval of data pose more problems.

The present facilities for the collection and exchange of meteorological information are far from being adequate for making reliable aviation forecasts. The centre would also forecast for farmers and for shipping companies. The information received will be used in the region.

2. Cost

The cost of the project is estimated at $1.30 million, broken down as follows:

	In million $
Equipment	0.30
Construction	1.00
Total	1.30

IV. Status

No information available.

V. Financing

Local financing received or expected: Nil
External financing secured: Nil
External financing required: $1.30 million

Project No. AIP-41-001

SUDAN: IMPROVEMENT OF THE EL OBEID AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Strengthening of runway and improvement of facilities

Location: El Obeid

Cost: $6.00 million

External financing required: $6.00 million

Duration: One year

Desirable starting date: 1983

Project initiator: Civil Aviation Authority

Project management authority: Civil Aviation Authority

II. Description

1. Aim and objective

The project aims at increasing the efficiency of this very important regional airport and to enable it to operate 24 hours a day. It also aims at expanding the facilities to accommodate heavier aircraft and to increase the total capacity of air freight and passenger services.

2. Nature and constituent parts

The project consists of:

- Laying of a 10 cm asphalt layer on the 2,500 m long runway;
- Improvement of taxiways;
- Construction of a new terminal building and a tower;
- Construction of access roads and a fuelling area;
- Provision of navigation aids, and lighting and handling equipment and facilities.

III. Justification; economic and financial analysis

1. Context and benefits

The town served by this airport is one of the largest commercial centres in the country and demand for air transport services is higher than supply. The improvement will generate more traffic and make the operation of commercial aircraft more profitable.

2. Cost

The cost of the project is estimated at $6.00 million.

IV. Status

Economic and technical feasibility studies have been completed.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$6.00 million

Project No. AIP-41-002

SUDAN: CONSTRUCTION OF NYALA AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Construction of new airport

Location: Nyala

Cost: $16.50 million

External financing required: $11.00 million

Duration: Two years

Desirable starting date: 1984

Project initiator: Civil Aviation Authority

Project management authority: Civil Aviation Authority

II. Description

1. Aim and objective

The project aims at providing reliable high-capacity air services between the regions and the rest of the country and improvement of connections with Central and West African countries.

2. Nature and constituent parts

The project involves:

- Construction of a 3,000 m long runway ;
- Construction of a terminal building ;
- Construction of a fuelling apron, access roads, tower, taxi-ways and fencing ;
- Provision of navigational, handling and lighting facilities;
- Provision of support facilities and services.

III. Justification ; economic and financial analysis

1. Context and benefits

The airport is to serve the rich agricultural area of Jebel Marra with 80,000 feddans of volcanic soil and climates ranging from tropical to temperate and a total area of 320,000 feddans of crop soil. One of the main occupations of the airport will be handling of meat exports.

2. Cost

The cost of the project is estimated at $16.50 million.

IV. Status

Economic and engineering feasibility studies have been completed.

V. Financing

Local financing received or expected:	$5.50 million
External financing secured:	Nil
External financing required:	$11.00 million

Project No. AIP-41-003

SUDAN: PURCHASE OF AIRPORT CONSTRUCTION EQUIPMENT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Purchase of construction equipment, machinery and spare parts

Location: Sudan

Cost: $13.20 million

External financing required: $11.00 million

Duration: One year

Desirable starting date: 1984

Project initiator: Civil Aviation Authority

Project management authority: Civil Aviation Authority

II. Description

1. Aim and objective

The objective of the project is to provide the Civil Aviation Authority with the basic tools for carrying out direct maintenance of existing airports and to repair deteriorated runways and buildings.

2. Nature and constituent parts

The project comprises purchase of maintenance equipment such as trucks, motor graders, ballasting equipment, etc. The project also includes the establishment of a maintenance workshop and purchase of spare parts.

III. Justification; economic and financial analysis

1. Context and benefits

Without regular maintenance airport runways will deteriorate, leading to unsafe operating conditions and making navigation dangerous. Since the cost of maintenance carried out by contractors is on the rise, it would be advisable to pool equipment and manpower in order to bring down costs and to guarantee regular maintenance.

2. Cost

The cost of the project is estimated at $13.20 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$2.20 million
External financing secured:	Nil
External financing required:	$11.00 million

Project No. AIP-41-004

SUDAN: STUDY AIMED AT IMPROVING SUDAN AIRWAYS MANAGEMENT CAPABILITIES

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Purchase of training equipment, provision of a computer centre and award of fellowships

Location: Khartoum

Cost: $1.75 million

External financing required: $1.75 million

Duration: Four years

Desirable starting date: 1984

Project initiator: Sudan Airways

Project management authority: Sudan Airways

II. Description

1. Aim and objective

The objective of the project is to improve the managerial and operational efficiency of the airline through better training methods. It also aims at improving the administrative system and introducing modern techniques.

2. Nature and constituent parts

The project involves:

- Purchase and installation of training equipment;
- Purchase and installation of computer system ;
- Organization of training locally and award of fellowships for refresher courses abroad.

III. Justification; economic and financial analysis

1. Context and benefits

The competitiveness of the air transport market requires improved services, under the management of well-trained staff and with developed information and marketing systems. By introducing new techniques the airline will be more competitive on the international market and it will be able to increase its share in the domestic market and thus play a positive role in the country's development.

2. Cost

The cost of the study is estimated at $1.75 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$1.75 million

Project No. AIP-41-005

SUDAN: CONSTRUCTION OF MALAKAL AIRPORT

I. Identification and summary

Orign of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Construction of an airport

Location: Malakal

Cost: $22.00 million, including $1.20 million for study

External financing required: $14.30 million

Duration: Two years

Desirable starting date: 1984

Project initiator: Civil Aviation Authority

Project management authority: Civil Aviation Authority

II. Description

1. Aim and objective

The project aims at establishing an airport midway between the capital of the country and the capital of the southern region. It aims at solving the chronic transport problems since the only other alternative is river transport.

2. Nature and constituent parts

The project consists of:

- Construction of a 2,000 m long runway;
- Construction of taxiways, a fuelling apron and fencing
- Construction of a terminal building;
- Construction of access roads;
- Installation of navigation aids;
- Installation of handling equipment.

III. Justification; economic and financial analysis

1. Context and benefits

The airport is to serve a provincial capital with growing transport demand. Since available transport services are very poor and time consuming, the Government is giving high priority to this project, which will improve connection between this region and the rest of the country. The airport will also serve as an alternate airport when Juba Airport cannot be used.

2. Cost

The cost of the project is estimated at $22.00 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$7.70 million
External financing secured:	Nil
External financing required:	$14.30 million

Project No. AIP-41-006

SUDAN: CONSTRUCTION OF WAU AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project with a subregional implications for a disadvantaged country

Nature: Construction of a new airport

Location: Wau

Cost: $16.00 million

External financing required: $11.00 million

Duration: Two years

Desirable starting date: 1984

Project initiator: Civil Aviation Authority

Project management authority: Civil Aviation Authority

II. Description

1. Aim and objective

The aim of the project is to improve links between this region, and the other parts of the country and with neighbouring countries. The existing airport cannot meet current demand.

2. Nature and constituent parts

The project involves:

- Construction of a 1,950 m long runway;
- Construction of a terminal building;
- Construction of fuelling aprons, access roads, taxiways and a control tower;
- Purchase of lighting facilities and navigation aids;
- Purchase of handling equipment and facilities.

III. Justification; economic and financial analysis

1. Context and benefits

Wau is the capital of a province bordering the Central African Republic and the airport, although a national airport, will serve a subregional purpose. The region is rich in livestock and has good agricultural potential. The airport will help develop export traffic from the region and service the international airport at Khartoum.

2. Cost

The cost of the project is estimated at $16.00 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$5.00 million
External financing secured:	Nil
External financing required:	$11.00 million

Project No. AIP-42-001

SWAZILAND: UPGRADING OF MATSAPHA AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Construction of a new airport

Location: Mbabane

Cost: $30.00 million

External financing required: $30.00 million

Duration: Two years

Desirable starting date: 1984

Project initiator: Ministry of Works and Communications

Project management authority: Civil Aviation Authority

Observations: Project transferred from Phase I.

II. Description

1. Aim and objective

The objective of the project is to improve air services in the land-locked country of Swaziland.

2. Nature and constituent parts

The project comprises construction of a new airport at a new location. The new airport should be designed to accomodate B-747s and DC-10s. A feasibility study was undertaken, financed by the African Development Bank.

III. Justification; economic and financial analysis

1. Context and benefits

The project is necessary to open up Swaziland and to develop tourism. The new airport will help realize this aim and will also provide better operating facilities for airlines.

2. Cost

The cost of the project is estimated at $30.00 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$30.00 million.

Project No. AIP-44-001

TOGO: IMPROVEMENT OF LOME AIRPORT AND CONSTRUCTION OF DOMESTIC AIRPORTS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project with subregional implications

Nature: Improvement of Lomé airport

Location: Togo

Cost: $12.80 million including $0.488 million for the studies

External financing required: $4.80 million

Duration: One year

Desirable starting date:

Project initiator: Ministry of Trade and Transport

Project management authority: Department of Civil Aviation

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The objective of the project is to expand Togo's airports to meet current international and domestic traffic.

2. Nature and constituent parts

The project is in three parts:

1. Improvement of Lomé airport:
   - Expansion of the airport to accommodate wide-body aircraft;
   - Extension of the air terminal;
   - Construction of a cargo terminal;

2. Construction of Niamtougou airport:
   - Construction of a freight hangar;
   - Construction of an air terminal;

3. Survey of new sites (Lomé, Sokode, Dapaong, Mango)

III. Justification; economic and financial analysis

1. Context and benefits

1. Improvement of Lomé airport

(a) Expansion of facilities to accommodate wide-body B-747 aircraft

The project consists of installing complementary equipment at the airport to make it possible to handle B-747s. The spectacular traffic increase at Lomé airport requires infrastructures suited to modern aviation needs.

In order to cope with the anticipated increase in air traffic, B-747s must have access to Lomé airport. The project is indispensable, in view of the planned introduction of"long-haul" aircraft on the route.

Cost: $2.00 million.

(b) Extension of the air terminal

The present air terminal has a handling capacity of 300,000 passengers per year. Passenger traffic increased very rapidly from 52,000 in 1972 to 194,000 by 1978. The present air terminal was expected to become inadequate around 1981-1982. Consequently the extension of the air terminal is a first priority project.

Cost: $4.00 million.

(c) Construction of a cargo terminal

To accommodate air cargo, it is planned to build a cargo terminal at Lomé airport. The studies are being conducted by ASECNA.

Cost: $3.20 million.

2. Construction of Niamtougou airport

This project aims at utilizing air transport to promote the economic and social development of the country.

Niamtougou airport will make it possible to transport textiles from the Togotex manufacturing plant which is situated 30 km from the airport and local agricultural products by air.

With the increase in air freight, a corresponding increase in passenger traffic is also expected. Provision should therefore be made at the cargo hangars and at the air terminal for the installation of the appropriate equipment.

Cost: $2.00 million and $1.40 million respectively.

3. Survey of new sites for Lomé, Sokode, Dapaong and Mango airports

This project concerns the survey of possible sites for provincial airports so as to improve communications between the various provincial towns and Lomé, the capital, and also to allow for national integration by facilitating the movement of people and goods between Lomé and the various districts. Finally, this project will also promote economic and tourist development by linking northern Togo with the rest of the country.

This project also includes studies for the deplacement of the existing airport from its location due to the expansion of the capital's urban area.

Cost: $0.20 million.

Financing is being negotiated with UNDP.

2. Cost

1. Improvement of the Lomé airport

(a) Expansion of facilities to accommodate wide-body aircraft

Cost: $2.00 million, of which $0.07 million was provided by the Government for studies. Financing obtained from CCCE. Project implemented in 1981.

(b) Extension of Lomé air terminal

Cost: $4.00 million, of which $0.20 million for studies. CCCE has been contacted and negotiations are under way.

(c) Construction of a cargo terminal at Lomé airport

Cost: $3.20 million, of which $0.10 million for the studies undertaken by ASECNA.

2. Construction of the Niamtougou airport

Construction of a cargo terminal. Cost: $2.00 million, of which $0.07 million is to be provided locally for studies. Starting date: 1984.

Construction of an air terminal. Cost: $1.40 million, of which $0.07 million is to be provided locally for studies. Desirable starting date: 1983.

The first phase of the airport construction did not include the air terminal because of the cost of prefinancing but operation of domestic and international services from this airport in the near future justifies the construction of the air terminal.

3. Survey of new sites

Cost: $0.20 million. Negotiations are well under way with UNDP. Desirable starting date: 1983.

In short, the total cost of the project is estimated at $12.80 million of which $0.488 million is for studies.

IV. Status

The project is under way.

V. Financing

Local financing received or expected:	$0.321 million
External financing secured:	$7.68 million
External financing required:	$4.80 million

Project No. AIP-46-001

UGANDA: ESTABLISHMENT OF AN AIRPORT ADMINISTRATIVE STRUCTURE

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Composite project comprising award of fellowships, purchase of equipment and technical assistance by experts (structural engineers for airports)

Location: Entebbe

Cost: $1.35 million

External financing required: $0.950 million

Duration: Three years

Desirable starting date: 1984

Project initiator: Ministry of Power and Communications

Project management authority: Department of Civil Aviation

Observations: This project, transferred from Phase I, comes under the supplementary assistance required by Africa for civil aviation in accordance with the document drawn up by ICAO for the Geneva Pledging Conference. The project document is available with the Government.

II. Description

1. Aim and objective

The objective of the project is to improve management of Entebbe Airport by training indigenous staff and providing the necessary equipment and technical assistance.

2. Nature and constituent parts

The project consists of award of training fellowships, technical assistance of ground engineers and management personnel and purchase of office and other airport equipment.

III. Justification; economic and financial analysis

1. Context and benefits

Reorganization of the management of the airport will make it possible to improve maintenance of infrastructure and will also provide local job opportunities.

2. Cost

The cost of the project is estimated at $1.35 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$0.40 million
External financing secured:	Nil
External financing required:	$0.95 million

Project No. AIP-46-002

UGANDA: STUDY ON THE ESTABLISHMENT OF A MAINTENANCE CENTRE FOR UGANDA AIRLINES

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Feasibility study and provision of maintenance facilities at Entebbe airport

Location: Entebbe

Cost: $2.36 million for studies

External financing required: $2.36 million

Duration: One year

Desirable starting date: 1984

Project initiator: Ministry of Power and Communications

Project management authority: Department of Civil Aviation

II. Description

1. Aim and objective

The objective of the project is to provide facilities for maintaining Uganda Airlines aircraft and for offering maintenance service to other carriers.

2. Nature and constituent parts

The project comprises:

- Feasibility study;
- Construction of a large hangar with workshops, offices and stores;
- Workshop equipment and tools;
- Test benches, JICs and other maintenance equipment.

III. Justification; economic and financial analysis

1. Context and benefits

A reduction in the cost of maintenance; savings on and earning of foreign exchange; improved reliability of the airline operations; provision of local employment opportunities.

2. Cost

The cost of the project is estimated at $2.36 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$2.36 million

Project No. AIP-46-003

UGANDA: RECONSTRUCTION OF ENTEBBE AIRPORT AND INSTALLATION OF AERONAUTICAL EQUIPMENT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Reconstruction of the new terminal and the installation of aeronautical equipment

Location: Entebbe

Cost: $23.00 million including $1.50 million for studies

External financing required: $23.00 million

Duration: Four years

Desirable starting date: June 1984

Project initiator: Ministry of Power and Communications

Project management authority: Department of Civil Aviation

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

To repair the serious damages caused during the 1978-1979 war, and also to expand services and improve safety standards.

2. Nature and constituent parts

The project comprises repair of the new terminal building and renovation of its interior. There could be structural damages to the building, for which a feasibility study is required to define and repair so as to ensure operation under safe and appropriate conditions.

III. Justification; economic and financial analysis

1. Context and benefits

Entebbe International Airport was once one of the busiest airports in East Africa. But the airport together with the navigation aids were badly damaged. This created an element of risk, resulting in many carriers withdrawing their services. The few airlines using the airport bring in such little revenue that the airport operates at a loss.

2. Cost

The cost of the project is estimated at $23.00 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$23.00 million

Best copy available

Project No. AIP-46-004

UGANDA: IMPROVEMENT OF FLIGHT INFORMATION SERVICES AND THE ESTABLISHMENT OF A FLIGHT INFORMATION REGION

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Purchase and installation of equipment, construction of central stores and a training programme

Location: Entebbe

Cost: $15.00 million

External financing required: $15.00 million

Duration: Four years

Desirable starting date: 1984

Project initiator: Ministry of Power and Communications

Project management authority: Department of Civil Aviation

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The aim of the project is to enable Uganda to control its own air space, and to improve safety at its airport to meet international standards.

2. Nature and constituent parts

The project comprises the establishment of a Flight Information Region (FIR) at Entebbe. This involves purchase and installation of equipment at various stations in the country. The equipment required are telecommunications equipment, terminal radar systems, HF AFTN systems, VOR, DME, ILS, NDBs, teleprinters, tape recorders, two control consoles, two AFTN/ATS, and a central radar system. Consultancy and technical services will also be required.

III. Justification; economic and financial analysis

1. Context and benefits

Flight Information Service for the whole of the East African Region was once centred in Nairobi, Kenya and operated by the East African Department of Civil Aviation. After the collapse of the East African Community, Uganda had to buy back this service from Kenya at a cost which it considered to be excessive. The establishment of the FIR would allow Uganda to control its air space and would link it with Khartoum, Kinshasa, Dar-es-Salaam, Kigali, etc., to the benefit of the whole region.

2. Cost

The cost of the project is estimated at $15.00 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$15.00 million

Project No. AIP-47-001

BOURKINA FASO: DEVELOPMENT OF BOBO-DIOULASSO AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project for a disadvantaged country

Nature: Lengthening of the runway from 2,050 m to 2,500 m and widening of the taxiways from 20 m to 23 m with 6 m anti-blast barriers on each side

Location: Bobo-Dioulasso

Cost: $8.00 million

External financing required: $8.00 million

Duration: Two years

Desirable starting date: 1984

Project initiator: Ministry in charge of Transport, Department of Civil Aviation

Project management authority: Ministry of Public Works, Transport and Town Planning

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The putting into service of new types of aircraft by the multi-national company, Air Afrique, and the replacement of its Caravelles by DC-8s or Airbuses on the African network calls for the development, in particular, of Bobo-Dioulasso airport which has been isolated from the other regional and neighbouring airports since the entry into service of the DC-8 aircraft and is only utilized by aircraft of Air Volta. This poses a problem of co-ordination between the schedules of various airlines. The project will help cut down the present excessive waiting time for passengers at Ouagadougou airport.

2. Nature and constituent parts

The project involves lengthening of the runway from 2,050 m to 2,500 m and widening of the taxiways from 20 m to 23 m with 6 m anti-blast barriers on each side.

III. Justification; economic and financial analysis

1. Context and benefits

The Bobo-Dioulasso region is endowed with enormous economic potential and in addition the town is located at the cross roads of regional trading routes and consequently enjoys a privileged position. The development of the airport will contribute towards the opening up of land-locked Upper Volta and may serve as an alternate airport whenever necessary.

2. Cost

The cost of the project is estimated at $8.00 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$8.00 million

Project No. AIP-48-001

ZAIRE: MASTER PLAN FOR LUBUMBASHI AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Study of the master plan for Lubumbashi Airport

Location: Lubumbashi

Cost: Approximately $0.40 million

External financing required: $0.40 million

Duration: One year

Desirable starting date: 1984

Project initiator: The Government

Project management authority: Régie des Voies Aériennes (RVA)

II. Description

1. Aim and objective

The objective of the project is to carry out a study and prepare a development plan for Lubumbashi Airport.

2. Nature and constituent parts

The project consists of:

- Economic studies of traffic projections;
- Climatological and meteorological surveys;
- Studies on air transport safety;
- Study of airport facilities that would meet future needs, over-all planning of facilities;
- Technical specifications and work plan;
- Cost estimate.

III. Justification; economic and financial analysis

1. Context and benefits

Traffic at Lubumbashi airport has been analyzed which showed an estimated annual turnover of $60 million.

The traffic potential should be developed because the region is very far from the sea. Besides the transportation of bulk and heavy goods, air transport is often the only possible means of transport.

In order to develop the resources of this region, which is essential to the economy of Zaïre, it is advisable to find out the action that would be required in terms of expansion of facilities, so as to take the appropriate measures to this effect.

Lubumbashi airport was built in 1955. The runway alone has been extended twice to cater for heavy carriers. However, there is doubt as to whether this foundation is stable enough.

The passenger terminal is outmoded and can no longer handle current passenger traffic.

The study will determine whether the present site can be developed in a co-ordinated manner, or whether a new airport should be built elsewhere. It will also specify the work needed in the short term.

2. Cost

The cost of the project is estimated at $0.40 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$0.40 million

Project No. AIP-48-002

ZAIRE: MASTER PLAN FOR N'DJILI AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Study on a master plan for N'Djili Airport

Location: Kinshasa

Cost: $0.60 million

External financing required: $0.60 million

Duration: One year

Desirable starting date: 1984

Project initiator: The Government

Project management authority: Régie des Voies Aériennes (RVA)

Observations: New project merged with the master plan for N'dolo airport for the purpose of seeking financing

II. Description

1. Aim and objective

The objective of the project is to carry out a detailed study and to draw up a master plan for the development of N'Djili Airport.

2. Nature and constituent parts

The project consists of:

- Economic studies on traffic forecasts;
- Climatic and meteorological surveys;
- Study on the safety of air navigation;
- Study on airport facilities required in the future including over-all plan of facilities.

III. Justification; economic and financial analysis

1. Context and benefits

The following is a breakdown of traffic at Kinshasa-N'Djili Airport in 1981:

Aircraft movements	24,400
Passenger	439,000
Freight	38,000

This volume of traffic justifies the planned study because the Zairian economy would be harmed if the airport reached saturation point without a prior study having been undertaken with a view to expanding the facilities.

Kinshasa-N'Djili Airport was built in 1929. Only slight changes were made in 1974 in passenger facilities. The current infrastructure is no longer adequate for the growing traffic; the study will show what essential changes should take place by the end of this century and will identify the work that needs to be carried out in the short term.

2. Cost

The cost of the project is estimated at $0.50 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$0.60 million

Project No. AIP-48-003

ZAIRE: EXTENSION AND RESURFACING OF THE BUKAVU AIRPORT RUNWAY

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Extension and resurfacing of the Bukavu runway

Location: Bukavu

Cost: $11.80 million

External financing required: $11.80 million

Duration: Two years

Desirable starting date: 1983

Project initiator: The Government

Project management authority: Régie des Voies Aériennes (RVA)

II. Description

1. Aim and objective

The objective of the project is to make operation of the B-737 aircraft profitable and safe. On two occasions, Air Zaïre nearly lost a B-737 aircraft.

2. Nature and constituent parts

The project consists of extension of the runway by 700 m to a length of 2,300 m.

III. Justification; economic and financial analysis

1. Context and benefits

Traffic handled at the Bukavu airport in 1981 was as follows:

Aircraft movements	6,000
Passengers	30,000
Freight	700 tons

This represented a turnover of some $7.00 million.

Assuming that the planned extension work would permit a decrease of 10 per cent in transport costs as a result of the use of more suitable aircraft (provided that such aircraft could be acquired by Air Zaïre or private carriers); and an increase of more than 10 per cent in current traffic, which now seems likely, $1.4 million would be saved annually, which corresponds to a short-term return of 1.2 per cent.

Bukavu is the capital of the Kivu region.

Extension of the runway would make Kivu region more independent administratively and economically vis-à-vis the central Government.

2. Cost

The cost of the project is estimated at $11.80 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$11.80 million

Project No. AIP-49-001

ZAMBIA: PURCHASE OF RADAR SYSTEMS AND TECHNICAL ASSISTANCE

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Purchase of three radars and assistance for air traffic control

Location: Lusaka, Ndola and Livingstone

Cost: $15.48 million

External financing required: $3.815 million

Duration: One year

Desirable starting date: 1984

Project initiator: Ministry of Power, Transport and Communications

Project management authority: Department of Civil Aviation

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The objective of the project is to improve the safety of air navigation. The present equipment at Zambian airports do not allow for efficient air traffic control.

2. Nature and constituent parts

The project comprises:

- Purchase of three radar systems;
- Technical assistance of air traffic controllers, two radar engineers and four qualified air traffic controllers representing a total of 216 man/months.

III. Justification; economic and financial analysis

1. Context and benefits

The increase in traffic calls for the installation of radar systems at Zambia's three international airports.

At present only Lusaka Airport has a radar system but even this is old (over 11 years) and obsolete.

Ndola Airport has many neighbouring airports under its control. Lack of radar facilities make the work of air traffic controllers difficult and risky.

Increase in traffic at Livingstone, a tourist centre, also makes the installation of a radar system necessary.

Technical assistance will be required for the installation and supervision of these radars during the first year.

2. Cost

The estimated cost of the project is $15.48 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$11.665 million
External financing secured:	Nil
External financing required:	$3.815 million

Project No. AIP-49-002

ZAMBIA: IMPROVEMENT OF SOUTHDOWNS AIRPORT (KITWE)

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Improvement of Southdowns Airport

Location: Kitwe

Cost: $13.60 million

External financing required: $13.60 million

Duration: Six years

Desirable starting date: 1983

Project initiator: Department of Civil Aviation

Project management authority: Department of Civil Aviation

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The objective of the project is to improve and renovate the airport with a view to facilitating the operations of medium-sized aircraft (such as the B-737). Southdowns Airport is linked to the domestic network and serves as a base for some domestic services.

The project comprises reconstruction and extension of the runway and installation of lighting facilities on it as well as construction of an airport terminal, a control tower and buildings for the fire-fighting and rescue services.

2. Nature and constituent parts

The project comprises:

- Phase 1: Lighting for the runway;

- Phase 2: Construction of the airport terminal buildings, a control tower and the fire protection and rescue service buildings and installation of equipment; reconstruction and extension of the runway and taxiway.

Southdowns Airport is located only 65 km from Ndola airport (project 49-004). The merger of the two airports is not feasible at the moment due to pressure from local authorities.

III. Justification; economic and financial analysis

1. Context and benefits

The project will make it possible for Southdowns Airport to handle much larger aircraft than it handles at the moment and to meet regularity and safety standards.

2. Cost

The cost of the project is estimated at $13.60 million including $0.40 million for providing the runway with lighting facilities.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured	Nil
External financing required:	$13.60 million

Project No. AIP-49-003

ZAMBIA: INSTALLATION OF AN INSTRUMENT LANDING SYSTEM AT LUSAKA AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Installation of an Instrument Landing System (ILS) at Lusaka International Airport

Location: Lusaka

Cost: $0.36 million

External financing required: $0.36 million

Duration: Three months

Desirable starting date: 1984

Project initiator: The Government

Project management authority: Ministry of Power, Transport and Communications

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The aim of the project is to maintain the safety of operations at the airport.

2. Nature and constituent parts

The project comprises the purchase of a Wilcox ILS Mark II, with the following components: localizer, glideslope, sideband rep, CE conversion, marker beacon, outer maker, spare parts, test equipment, and training.

III. Justification; economic and financial analysis

1. Context and benefits

The present ILS is obsolete and beyond repair. With the installation of this equipment, it will be possible to maintain 24-hour operations at this important airport.

2. Cost

The cost of the project is estimated at $0.36 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$0.36 million.

Project No. AIP-49-004

ZAMBIA: INSTALLATION OF AN INSTRUMENT LANDING SYSTEM AT N'DOLA AIRPORT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Installation of Instrument Landing System (ILS) at N'Dola Airport

Location: N'Dola

Cost: $0.64 million

External financing required: $0.64 million

Duration: Three months

Desirable starting date: 1984

Project initiator: The Government

Project management authority: Ministry of Power, Transport and Communications

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The aim of the project is to maintain the safety of operations at N'Dola Airport where there is at present no ILS. This limits operations to this airport which serves the Zambian Copperbelt.

2. Nature and constituent parts

The project comprises the purchase of a Wilcox ILS Mark II, with the following components: localizer, glideslope, sideband rep, CE conversion, marker beacon, outer marker, spare parts, test equipment, and training.

III. Justification; economic and financial analysis

1. Context and benefits

The traffic to N'Dola is developing quite rapidly, which makes it necessary to put the B-737 into service. This aircraft requires landing aids, with which the airport is presently not equipped.

2. Cost

The cost of the project is estimated at $0.64 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$0.64 million

Project No. AIP-49-005

ZAMBIA: TRAINING OF AERONAUTICAL PERSONNEL AT THE ZASTI CENTRE

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: National project

Nature: Composite project comprising the award of fellowships and purchase of training equipment, including a training aircraft

Location: Zasti

Cost: $0.67 million

External financing required: $0.67 million

Duration: One year

Desirable starting date: 1984

Project initiator: Ministry of Power, Transport and Communications

Project management authority: Department of Civil Aviation

Observations: Project comes under the supplementary assistance required by Africa in the field of civil aviation according to the document drawn up by ICAO for the Geneva Pledging Conference. The project was transferred from Phase I and the project document is available, with the Government.

II. Description

1. Aim and objective

The objective of the project is to train aeronautical personnel at the Zasti training centre.

2. Nature and constituent parts

The project comprises:

- Award of training fellowships;
- Purchase of training equipment and a training aircraft.

III. Justification; economic and financial analysis

1. Context and benefits

Training of aeronautical personnel at reduced cost will cut down the operating cost of airline and help the economic and social development of the country. The Zasti centre will allow for the provision of basic training at relatively lower cost.

2. Cost

The cost of the project is estimated at $0.67 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$0.67 million

Project No. AIP-60-001

STUDY ON THE ESTABLISHMENT OF AN INTRA-AFRICAN AGENCY FOR THE PURCHASE OF AIRCRAFT AND A LEASING AGENCY

I. Identification and summary

Origin of the project: Submitted by the Governments

Sub-sector: Air transport

Order of priority: Regional project

Nature: Preliminary study on the benefits and operating methods of an agency to finance the purchase of aircraft and of a leasing agency

Location: Regionwide

Cost: $0.10 million

External financing required: $0.10 million

Duration: Six months

Desirable starting date: 1984

Project initiator: Economic Commission for Africa (ECA)

Project management authority: African Civil Aviation Commission (AFCAC)

Observations: These studies should be carried out under the auspices of AFCAC. They imply an estimate of the number of aircraft needed in the future by African airlines, taking into account prospects for the development of passenger and freight traffic and require the participation of two experts (i.e. 12 man-months). The project was transferred from Phase I

II. Description

1. Aim and objective

The main objective of the project is to enable African airlines to purchase aircraft at cheaper prices and also to improve aircraft management.

2. Nature and constituent parts

The project consists of undertaking studies on the operation of an agency for financing the purchase of aircraft and of a leasing agency.

III. Justification; economic and financial analysis

1. Context and benefits

At present, airlines purchase their aircraft and equipment individually from manufacturers and as such, cannot benefit from favourable terms of financing. Joint purchase of selected aircraft will reduce purchase costs and improve airlines management.

2. Cost

The cost of the project is estimated at $0.10 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$0.10 million

Project No. AIP-60-002

STUDY ON PASSENGER TRANSFER SYSTEMS AND CARGO-HANDLING EQUIPMENT

I. Identification and summary

Origin of the project: Submitted by the governments

Sub-sector: Air transport

Order of priority: Regional project

Nature: Study on passenger transfer systems and cargo-handling equipment

Location:

Cost: $0.10 million

External financing required: $0.10 million

Duration: Six months

Desirable starting date: 1984

Project initiator: Economic Commission for Africa

Project management authority: African Airlines Association (AFRAA)

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The objective of the project is to improve passenger and cargo handling procedures at African airports by providing ground facilities suited to the growth and nature of the traffic.

As far as passenger transfer systems and cargo-handling equipment are concerned, African airports are in a very critical situation. Many African airports do not have any kind of suitable handling equipment (fork lifts, high elevators, and even trucks). In the well-equipped airports, the equipment is often out of use because of poor maintenance.

The coming into service of bigger aircraft makes it necessary for airports to acquire auxiliary equipment for passengers (such as boarding steps and access tunnels) and for cargo (such as supply lorries and unloading conveyor belts).

2. Nature and constituent parts

The proposed study consists of the following:

- An inventory of the different types of passenger transfer systems and cargo-handling equipment now in use in African airports;
- Identification of ways of using existing equipment efficiently;
- Formulation of rules for maintenance and drawing up of appropriate programmes;
- Recommendations as to the types of equipment that should be used;
- Preparation of a financial scheme and consideration of the possibilities of borrowing or leasing.

The study requires the services of two experts: an air freight expert for six months and a financial expert for three months.

III. Justification; economic and financial analysis

1. Context and benefits

Lack of adequate passenger transfer systems and cargo-handling equipment, often subjects passengers to tiredness and long delays and cause damage to goods. Aircraft may also sometimes be seriously damaged.

It should be noted furthermore that lack of operational handling equipment causes delays for aircraft: flight schedules are often thrown into confusion in African airports because of the slow pace at which loading and unloading are carried out. Such delays cause substantial financial losses to the airlines: the cost of a minute's delay for a Boeing is estimated at $200.

2. Cost

The cost of the project is estimated at $0.10 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$0.10 million

Project No. AIP-60-003

ETHIOPIA: MULTINATIONAL ENGLISH-SPEAKING TRAINING CENTRE FOR PILOTS AND AIRCRAFT MAINTENANCE TECHNICIANS

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: Regional project

Nature: Construction of class rooms, workshops, student dormitories, an administrative building, hangars, purchase of technical and training equipment

Location: Addis Ababa (Ethiopia)

Cost: $20.00 million

External financing required: $15.00 million

Duration of project: Five years

Desirable starting date: 1984

Project initiator: Ministry of Transport and Communications

Project management authority: Civil Aviation Authority

II. Description

1. Aim and objective

This project meets the objective of providing African countries with the training facilities to enable them to meet their needs in qualified aeronautical personnel.

As written in the Convention on the establishment of the Centre, the objectives of the Centre shall be:

- To train airline cockpit personnel at all levels required as well as aircraft maintenance technicians;
- To contribute to the continued and advanced training of civil aviation personnel;
- To provide additional training to students from certain other training institutions under conditions to be determined by / agreements as concluded between it and other training institutions.

The Centre shall be a research, documentation and distribution centre. It shall provide technical assistance to any contracting State requesting such assistance. This assistance may be provided through missions, consultations or studies.

2. Nature and constituent parts

The project calls for the establishment of an English-speaking multinational centre at Addis Ababa, which will provide training courses for the following two specialized personnel: pilots and aircraft maintenance technicians.

The Government of Socialist Ethiopia will provide the Centre with the land and initial buildings.

III. Justification; economic and financial analysis

1. Context and benefits

A survey carried out in 1974 and 1975 by the International Civil Aviation Organization determined the immediate and long-term needs in manpower and training facilities of civil aviation authorities and airlines. The survey showed that Africa was suffering from serious lack of training centres.

Very few countries have individual needs of sufficient magnitude to merit the setting up a national school, whereas the collective needs of the State concerned justify the establishment of a multinational centre, so as to standardize training in the whole continent.

2. Cost

The cost of the project is estimated at $20.00 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$5.00 million
External financing secured:	$2.50 million
External financing required:	$12.50 million

Project No. AIP-60-004

GABON: ESTABLISHMENT OF A FRENCH-SPEAKING MULTINATIONAL TRAINING CENTRE FOR PILOTS AND AIRCRAFT MAINTENANCE TECHNICIANS

I. Identification and summary

Origin of the project: Submitted by the governments

Sub-sector: Air transport

Order of priority: Regional project for the States signatories of the Libreville* Convention

Nature: Construction of class rooms, workshops, dormitories for the students, an administrative building, hangars to house and maintain the aircraft. kPurchase of technical and training equipment

Location: Franceville/Mvengue (Gabon)

Cost: $38.00 million

External financing required: $4.20 million

Duration: Five years

Desirable starting date for the second part of the project: 1983

Project initiator: Ministry of Civil and Commercial Aviation

Project management authority: General Secretariat of Civil and Commercial Aviation

* The following Governments have signed the Libreville Convention: Cameroon, Central African Republic, Chad, Comoros, the Congo, Gabon, Mali, Rwanda, Sao Tome and Principe, Senegal, Togo and Zaire, and have undertaken to make financial contributions towards the project.

Observations: Project transferred from Phase I. The Gabonese Government has already contributed $27.00 million and UNDP $6.80 million. The remainder of the financing required, i.e. $4.20 million is still to be found.

II. Description

1. Aim and objective

The objective of the project is to provide African countries with the training facilities to enable them to meet their needs in qualified aeronautical personnel.

It aims at providing the French-speaking African countries, whose requirements in professional pilots and aircraft maintenance engineers do not justify the establishment of a national training centre, with the resources to establish, to support and to operate a multinational civil aviation training centre. This project responds to the wishes expressed by the Organization of African Unity and the African Civil Aviation Commission.

2. Nature and constituent parts

This project calls for the establishment of a multinational Centre for French-speaking countries at Franceville/Mvengue which will provide training courses for two types of specialist personnel: pilots and aircraft maintenance engineers, 20 pilots and 18 maintenance engineers will be trained every year.

The training courses at the Centre will last:

- 24 months for pilots;
- 26 months for airframe and engine technicians;
- 24 months for structural and systems technicians;
- 28 months for technicians;

The project comprises:

- Construction of buildings: hangars, class rooms, workshop buildings to house simulators, administrative premises, dwellings, guest quarters, recreational facilities for the students, housing for staff;
- Purchase of flight equipment: four single-engine aircraft, three twin-engined light aircraft, two twin-engined aircraft of advanced design;
- Purchase of ground equipment: teaching equipment and a twin-jet simulator.

III. Justification; economic and financial analysis

1. Context and benefits

A survey carried out in 1974 and 1975 by the International Civil Aviation Organization determined the immediate and long-term (five years) needs in manpower and training facilities of the civil aviation authorities and of the airlines. The survey showed that Africa was suffering from a serious lack of training centres. Existing capacity was sufficient to train 15,000 man-months per annum, whereas the need was for 34,000 man-months.

Very few countries have individual needs of sufficient magnitude to merit the setting up of a national school, whereas the collective needs of the States concerned justify the establishment of a multinational centre, so as to standardize training in the whole continent.

The practice of sending students to other continents for their training partially deprives Africa of the possibility of playing an active part in its own development and of becoming self-sufficient in this vital field. This situation is particularly acute with regard to the special skills of pilots and aircraft maintenance technicians: more than 160 pilots and 200 technicians are needed in French-speaking Africa (without taking into account the needs of Air-Afrique), in order to ensure that its personnel is 75 per cent African by 1983.

Because of surface transport difficulties, Gabon, whose main airports are among the most active in French-speaking Africa, has been interested in multinational centres since 1974. It has invested more than FCFA 800 million in studies, draft projects, plans, ground levelling to prepare for the installation of this centre at Franceville/Mvengue, where there there is a modern well-equipped airport capable of handling the biggest commercial aircraft now in service.

The facilities of this airport will contribute effectively to provide pilots with safe and high standard training.

2. Cost

The total cost of the project is estimated at $38.00 million.

IV. Status

The project is underway.

V. Financing

Local financing received or expected:	$27.00 million
External financing secured:	$5.80 million
External financing required:	$4.20 million

Project No. AIP-60-005

GUINEA/LIBERIA/SIERRA LEONE: AID TO ROBERTS FLIGHT INFORMATION REGION

I. Identification and summary

Origin of the project: Submitted by the Governments of Guinea, Liberia and Sierra Leone

Sub-sector: Air transport

Order of priority: Regional project

Nature: Purchase of in-flight navigational aids (VOR-DME and NDB) and ILS for approaches

Location: Monrovia, Liberia

Cost: $1.50 million

External financing required: $1.50 million

Duration: One year

Desirable starting date: 1984

Project initiator: International Civial Aviation Organization (ICAO)

Project management authority: Departments of Civil Aviation of Liberia and Sierra Leone

Observations: The assistance required by the Roberts FIR is determined by the regional meetings held under the auspices of ICAO which make recommendations. The last meeting of AFI-VI was held at Arusha in the United Republic of Tanzania in November 1979. This project was transferred from Phase I and its project document is available.

II. Description

1. Aim and objective

The objective of the project is to improve the safety of air navigation within the Roberts FIR.

2. Nature and constituent parts

The project comprises purchase of in-flight navigational aids which such as VORs, DMEs, NDBs and ILS.

III. Justification: economic and financial analysis

1. Context and benefits

The Roberts FIR monitors the air traffic of three West African States. Its in-flight navigational aids are becoming obsolete and can no longer provide the best guidance to air traffic. The equipment to be purchased will help improve air navigation safety.

2. Cost

The cost of the project is estimated at $1.50 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$1.50 million

Project No. AIP-60-006

FEASIBILITY STUDIES ON THE ESTABLISHMENT OF A CO-ORDINATED NETWORK OF AIRCRAFT MAINTENANCE AND OVERHAUL CENTRES

I. Identification and summary

Origin of the project: Submitted by the Governments

Sub-sector: Air transport

Order of priority: Regional project

Nature: Inter-regional feasibility studies for the establishment of a co-ordinated network of aircraft maintenance and overhaul centres

Location: Regionwide

Cost: $0.50 million

External financing required: $0.50 million

Duration: One year

Desirable starting date: 1984

Project initiator: African civil Aviation Commission (AFCAC)

Project management authority: African Civil Aviation Commission (AFCAC)

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The objective of the project is to establish a co-ordinated network of aircraft maintenance and overhaul centres.

2. Nature and constituent parts

In accordance with conclusions reached at the subregional meetings organized by AFCAC and decision taken at the AFCAC fifth plenary session and statement of general policy adopted by OAU, these feasibility studies to be carried out over a 9- to 12-month period intend to:

- Recommend an optimum system of centres for maintaining and repairing air-frames and aircraft flight instruments;
- Estimate the amount of investment and operating cost to this effect;
- Determine requirements for qualified staff as well as for training; and
- Perform a cost/benefit analysis as compared to the existing co-operation system.

Financing, to be sought in its entirety from external sources, will be provided by the African Development Bank's participation.

III. Justification; economic and financial analysis

1. Context and benefits

The African Civil Aviation Commission has for several years been studying ways in which its member States can co-operate with each other to improve skill levels and lower costs to the member States and their airlines. Maintenance and overhaul of aircraft (engines and other components) represents an area in which co-operation can yield substantial benefits to the member States. Currently, most major overhaul work is contracted outside Africa. This results in a large foreign exchange drain for many States, as well as a missed opportunity to improve skill levels of local labour.

AFCAC has therefore decided to request consulting assistance to determine the most possible method (or methods) of organizing a network of maintenance and overhaul facilities in Africa which would alleviate the above-mentioned problems and would as well cope with the desire of its member States to create the optimum conditions which facilitate the transfer of modern technology and the training of required skilled manpower through the establishment of such technical structures.

2. **Cost**

The cost of the project is estimated at $0.50 million.

IV. **Status**

The project is underway.

V. **Financing**

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$0.50 million

Project No. AIP-60-007

CEPGL: STUDY ON THE ESTABLISHMENT OF A JOINT AIR CARGO TRANSPORT COMPANY

I. Identification and summary

Origin of the project: Submitted by the Economic Community of the Great Lakes cCountries (CEPGL)

Sub-sector: Air transport

Order of priority: Subregional project

Nature: Study on the purchase and initial capital expenditure to operate a fleet of cargo aircraft to facilitate the flow of the large volumes of cargo in the CEPGL member countries and goods to and from the ports on the Indian and Atlantic Oceans

Location: CEPGL member countries

Cost: $0.70 million

External financing required: $0.70 million

Duration: Two years

Desirable starting date: 1983

Project initiator: Economic Community of the Great Lakes Countries

Project management authority: National airlines and the CEPGL secretariat

II. Description

1. Aim and objective

The project aims at identifying the opportunities for creating and reinforcing co-operation between the national airlines of Burundi, Rwanda and Zaire in the field of air cargo transport as a means of opening up these land-locked countries.

2. Nature and constituent parts

The project comprises the purchase of the necessary cargo aircraft and the setting up of the structures of the joint company.

III. Justification; economic and financial analysis

1. Context and benefits

In a land-locked region such as the one made up of Burundi, Rwanda and a major part of Zaire, where railways are almost non-existant, and roads undeveloped, air transport would certainly relieve the problems related to being land-locked.

2. Cost

The cost of the project is estimated at $0.70 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	Nil
External financing secured:	Nil
External financing required:	$0.70 million

Project No. AIP-60-008

STUDY ON AN OPTIMUM SYSTEM OF CONNECTING FLIGHTS BETWEEN AIRLINES IN AFRICA

I. Identification and summary

Origin of the project: Submitted by the governments

Sub-sector: Air transport

Order of priority: Regional project

Nature: Study on an optimum system of interlining within the scope of a concerted policy of co-ordinated schedules at a certain number of airports

Location:

Cost: $0.50 million

External financing required: $0.50 million

Duration: One year

Desirable starting date: 1963

Project initiator: African Civil Aviation Commission (AFCAC)

Project management authority: African Civil Aviation Commission

Observations: Project transferred from Phase I

II. Description

1. Aim and objective

The objective of the project is to present optimum development in all aspects of African international air services, namely those of network structures, flight frequencies, schedule co-ordination, co-operation agreements between airlines, creation of intra-African air freight services (possibilities for creation of distribution centres and free zones).

This study, scheduled to be performed within one year from 1983, will consist in establishing schedule co-ordination at a certain number of airports (to be considered as regional collectors) so as to obtain an optimum number of connections between the various flights involved.

2. Nature and constituent parts

Activities to be undertaken to this effect will include review of present policy for air routes authorization; data collection; preparation of traffic forecast; review of factors to improve movements of aircraft, goods and passengers; and definition of a policy of co-operation between airlines to serve some sectors which do not seem to be profitable in the very near future.

III. Justification; economic and financial analysis

1. Context and benefits

The great policy statement on civil aviation, adopted at the thirty-fifth session of the OAU Council of Ministers and approved at the seventeenth Assembly of Heads of State and Government, reaffirms the objectives set forth in the African Declaration on Co-operation and Economic Independence related to the optimum development of all aspects of African international airlines, namely namely those of networks structures, flight frequency, schedule co-ordination, co-operation agreements between airlines and creation of intra-African air freight services.

The new projects takes into account the resolution on policy of air transport adopted at the first Conference of African Ministers of Transport, Communications and Planning which defined a certain number of principles governing air traffic rights between African States.

2. Cost

The cost of the project is estimated at $0.50 million.

IV. Status

The sum of $0.20 million was contributed to finance phase I by FAC and $0.30 million is expected from EDF for Phase II. Study will be carried out by ITA and AFCAC as lead agency. The project is underway.

V. Financing

Local financing received or expected:	Nil
External financing secured:	$0.20 million
External financing required:	$0.30 million

Project No. AIP-60-009

SENEGAL: CONSTRUCTION OF A MAINTENANCE COMPLEX FOR WIDE-BODY AIRCRAFT

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: Subregional project

Nature: Construction of a fully equipped complex for the repair and maintenance of all types of aircraft currently in operation

Location: Dakar Airport

Cost: $25.00 million including $1.80 million for studies

External financing required: $20.00 million

Duration: Three years

Desirable starting date: 1984

Project initiator: Ministry of Equipment

Project management authority: Department of Civil Aviation

Observations: No preliminary studies have yet been carried out on this project

II. Description

1. Aim and objective

The objective of the project is to reduce the operating costs of African airlines by cutting out the costs involved in sub-contracting maintenance work to Europeans, which greatly affects the running of newly established airlines. The principal aim is to make it possible for the maintenance work which needs to be done on aircraft belonging to African airlines to be undertaken by Africans in Africa and thus improve the rate of utilization.

2. Nature and constituent parts

The project comprises construction of a complex to maintain wide-body aircraft belonging to Air Afrique and other airlines at Dakar-Yoff Airport:

- A hangar in two sections with an entrance wide enough to admit two B-747s (approx. 16,000 m2);
- Engineering facilities, workshops and offices (9,000 m2);
- An aircraft parking apron (39,000 m2);
- Taxiways (by-pass access strips for aircraft, and roads for various vehicles, approx. 2 km).

III. Justification; economic and financial analysis

1. Context and benefits

Most of the major maintenance work on aircraft belonging to African airlines is at present undertaken outside Africa at very high cost to the airlines. The cost of sub-contracted maintenance increases the operating costs of these small airlines. In the coming years, the fleet of African airlines will be made up solely of wide-body aircraft (Air Afrique is planning on having mostly wide-body aircraft and only one DC8-63 in its fleet by 1986). To be able to undertake all the maintenance work on the fleet belonging to Air Afrique and to other airlines of the member States of ECOWAS, the Board of Directors of Air Afrique has decided to sponsor the construction of a maintenance complex to provide back-up services for the maintenance of Air Afrique aircraft at the Dakar maintenance centre up to check "C" level.

This project is also part of the programme aimed at establishing a co-ordinated network of aircraft maintenance and overhaul centres in accordance with the recommendation of the second plenary session of AFCAC and the decisions taken by the committee of ministers from the States members of Air Afrique and of its Board of Directors.

The project will make it possible to reduce the operating costs of African airlines, improve the turn-around of African airlines, contribute to the transfer of technology between North and South help reduce African air fares and help develop tourism in Africa.

2. Cost

The cost of the project is estimated at $25.00 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$5.00 million
External financing secured:	Nil
External financing required:	$20.00 million

Project No. AIP 60-010

SENEGAL: EXPANSION OF THE AIR AFRIQUE CIVIL AVIATION TRAINING CENTRE

I. Identification and summary

Origin of the project: Submitted by the Government

Sub-sector: Air transport

Order of priority: Subregional project

Nature: Expansion and renovation of the Air Afrique professional training centre in Dakar

Location: Dakar-Yoff

Cost: $1.80 million

External financing required: 55 per cent of the total cost or $0.99 million

Duration: One year

Desirable starting date: 1984

Project initiator: Air Afrique and the Department of Civil Aviation

Project management authority: Department of Civil Aviation of Senegal with the assistance of the International Civil Aviation Organization

II. Description

1. Aim and objective

The objective of the project is to double the admission capacity of the existing training centre to make it possible to train 50 aircraft maintenance mechanics and technicians per year. This decision was taken by the member States of the multinational airline, Air Afrique.

The aim is to train aircraft maintenance technicians and mechanics for the West African subregion.

2. Nature and constituent parts

The project comprises:

- Construction of buildings (lecture halls, workshops and dormitories for the trainees);
- Purchase of equipment, audio-visual teaching aids and other tools for the workshops.

III. Justification; economic and financial analysis

1. Context and benefits

This kproject is complementary to the one on the construction of a complex for maintaining wide-body aircraft at the Dakar-Yoff airport (AIP-60-009), so that those trained could be employed directly at the centre without having to resort to recruitment of expatriate personnel.

The implementation of the project AIP-60-009 will make it possible for African airlines to stop sub-contracting maintenance work on their aircraft to firms outside Africa.

The benefits to derived from the project are:

- Reduction in operating costs due to maintenance being undertaken by Africans at the maintenance complex;
- Savings on the foreign exchange used for sub-contracting maintenance abroad;
- North/South transfer of technology.

2. Cost

The cost of the project is estimated at $1.80 million.

IV. Status

No information available.

V. Financing

Local financing received or expected:	$0.81 million
External financing secured:	Nil
External financing required:	$0.99 million